3: Anonymous U-4 (no date) 1920 RH1 Caucasia RH1

131 Caspian at Fort St. Nicholas on the Astara. The eastern frontier, some 450 miles in length, is formed by the Caspian Sea from the Bay of Agrakhan to the River Astara.

Geographically Transcaucasia is so placed that, with the development of communications, it should reap considerable advantages from the commercial development both of northern Persia and of north-eastern Asia Minor.

(2) Surface, Coasts, and River System

Surface

133 Transcaucasia is divided across the centre from west [est] to east by the two valleys of the Rion and Kura, the head-waters of which are separated by the low ridge of the Suram Mountains, connecting the Caucasus with the Armenian Highlands. These valleys run west and east into the Black and Caspian Seas respectively. They are roughly equivalent to the Governments of Kutais (the Rion valley), Tiflis, Elisavetopol, and Baku. The Governments of Kutais and Tiflis and parts of Batum form the region known as Georgia.

The Rion valley is narrowed in its upper part by the mountainous district of Svanetia, but begins to broaden west of Kutais, and becomes a flat, marshy plain. The Kura valley narrows about Tiflis, and then widens till, at the Mughan steppe, it is over 100 miles broad. The valley floor slopes gently east from 1,200 ft. at Tiflis to 500 ft. in the middle of its course, and 85 ft. below sea level at the Caspian. The only interruption is caused by a plateau of between 2,000 and 3,000 ft. along the southern foot-hills of the eastern Caucasus in the region known as Kakhetia.

134 The soil in the Rion and upper Kura valleys is 311 extraordinarily fertile. On the southern slope of the Caucasus, in fact, almost every available patch of ground is successfully utilized for agriculture, even up to a height of 7,000–8,000 ft. Most of the steppes in the lower Kura valley are too dry to be cultivated without the aid of irrigation.

3: Anonymous U-4 (no date) 1920 RH1 Caucasia RH1

own homes, and a rise of from 10 per cent. to 50 per cent. in the rates of pay. A promise of improved housing had been obtained when war broke out, and the men returned to work.

In the matter of wages, the demand at Baku was for a minimum of £3 10*s.* a month; in 1908 an ordinary labourer on the oil-fields had earned only from 32*s.* to 40*s.* a month. In other industries ordinary labourers received from 2*s.* 6*d.* to 5*s.* a day, artisans from 5*s.* to 7*s.* 6*d.*, and miners from 5*s.* to 8*s.* 4*d.* Italian masons were paid from 3*s.* 4*d.* to 6*s.* 8*d.* a day. Agricultural labourers in 1913 were receiving from about 1*s.* 7*d.* to about 2*s.* 2*d.* a day, wages being highest in Kutais and lowest in Terek. Female labour, which is much used both in agriculture and in industry, is very poorly paid.

Since 1912 accident and sickness insurance has been compulsory for large industrial concerns. Medical attendance, maintenance during illness, and pensions for totally disabled workmen and for the dependants of workmen accidentally killed in their employers' service, have to be provided by the employers.

(2) Agriculture

(*a*) *Products of Commercial Value.*

Vegetable Products.—Cereals grow well in the soil of Ciscaucasia, which is a continuation of the 'black earth' of southern Russia. The area planted with *wheat* in 1914 throughout the country was 12,700,000 acres, yielding nearly 3,000,000 tons of grain; nearly 5,000,000 acres were in Kuban and over 4,000,000 in Stavropol. The area under *barley* in the two divisions of Caucasia in 1914 was about 5,500,000 acres (yielding 1,600,000 tons), and of these more than 4,000,000 were in Ciscaucasia—2,000,000 in Kuban, 1,600,000 in Stavropol, and the rest in Terek. Between 1911 and 1915 Ciscaucasia produced on an average one-third of the total output of winter wheat in the whole Russian Empire and about 15 per cent. of the entire yield of

243 wheat and barley. Considerable quantities of both
● 311 wheat and barley are also grown in the eastern and central parts of Transcaucasia, the area under wheat in 1914 being 475,000 acres in Baku, 692,000 in Elisavetopol, and 680,000 in Tiflis, and that under barley, *which thrives up to an elevation of 8,000 ft.*, being 248,000 acres, 329,000 acres, and 318,000 acres respectively in the same three governments.

Maize is the cereal most widely cultivated in north-western Transcaucasia, where it forms the principal food of the population, and whence it is also exported to Europe and Turkey. In Kutais the crop covered 466,000 acres in 1914; and in the little coastal district of Sukhum more than 100,000 acres. The acreage under maize in the whole country was 1,440,000, of which 670,000 acres were in Transcaucasia. Of the 770,000 acres sown in Ciscaucasia, 561,000 were in Terek. The total production of maize in 1914 amounted to 481,000 tons. *Millet* is almost entirely confined to Ciscaucasia, which in 1914, out of a total of 951,000 acres, yielding 355,000 tons, could claim 895,000 acres, more than half of them in Terek and most of the remainder in Stavropol. *Oats* are even more exclusively a product of the northern provinces, for in 1914, of a total of 1,056,000 acres, 512,000 were in Kuban, 301,000 in Stavropol, and 204,000 in Terek. The total yield was 441,000 tons. *Rye* is the least popular of the cereals, there being only 407,000 acres under this crop in the north, of which 246,000 were in Kuban, and 133,000 in the south, of which 75,000 were in Elisavetopol. The total yield was 137,000 tons. The growing of *rice* is decreasing; the yield in 1914 was 28,000 tons, and the area under cultivation 78,000 acres.

248 *Cotton*, first grown in the Government of Kutais in 1860, had come before the war to be cultivated over considerable areas in Elisavetopol and Erivan, and to a smaller extent in Baku, Tiflis, and Kutais, while a beginning had been made in Sukhum and Kars. Indeed the cotton crop, which was superseding rice, was looked on as a promising source of future prosperity, and

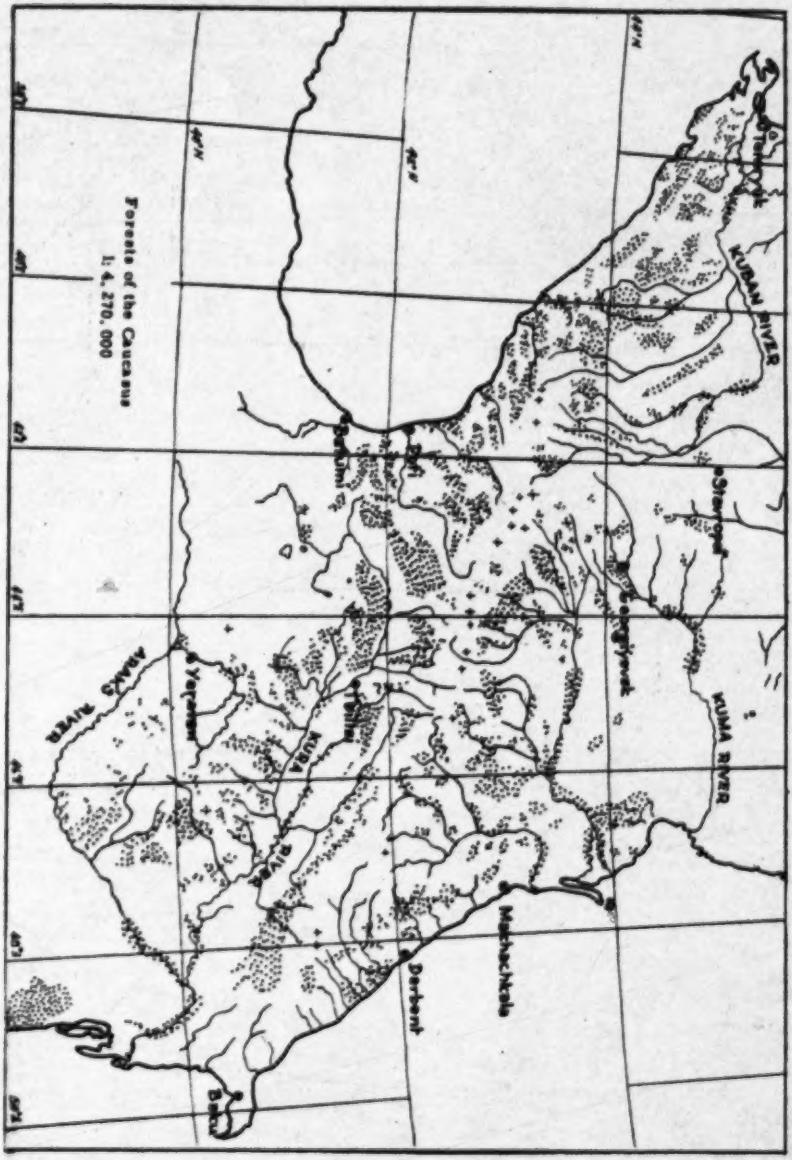
3: Anonymous U-4 (no date) 1920 RH1 Caucasia RH1

its cultivation was encouraged by the Government. American cotton gins, irrigation pumping plant, traction engines, and ploughs had been introduced, and cleaning mills of modern pattern built, and it was hoped that on the completion of the irrigation schemes, by which the surplus waters of the Kura and Aras (Araxes) were to be utilized (see pp. 59–60), it would be possible greatly to enlarge the area under cultivation. That area, which thirty years ago was only about 30,000 acres, had already increased by 1910 to 150,000 acres, and by 1912 to 223,000 acres. With regard to the area sown in 1914, there is a wide discrepancy between the Russian official return (186,000 acres) and the figure (337,500 acres) supplied by the British Consul at Batum. The Consul states, however, that owing to a decreased demand and consequent fall in prices, caused by the closing of the Polish mills and the shortage of labour in the manufacturing centres of Russia, there was a tendency among growers to abandon cotton for cereals; and it is possible that his figure is based on an estimate of the probable acreage before this tendency had become fully operative, while the Russian figure represents the area actually cultivated. Of the 186,000 acres of the Russian return, half lay in the Government of Elisavetopol, about a third in that of Erivan, and some 20,000 acres in that of Baku; while of the yield, which was a little under 60,000 tons, 35,500 tons came from Elisavetopol and 18,000 tons from Erivan. This yield, however, owing to heavy rains and cold weather, was below the average.

Flax was grown on 168,000 acres in Ciscaucasia and 18,000 acres in Transcaucasia in 1914, the total yield being 38,000 tons, which was double the yield of 1910. The cultivation of *hemp* is on a very much smaller, though an equally increasing, scale, and is almost entirely confined to the north. There is, however, a plant closely resembling hemp, called *kanap*, which is easily grown and might be used for the same purposes.

Fruit.—Practically all the districts in Transcaucasia

7: Columbia U. S-4, 5 1956 RHl Caucasia RHl



7: Columbia U. S-4, 5 1956 RH1 Caucasia RH1

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a-1, 5 Caucasian Industry in Czarist Russia as of 1913

- X : Centers of fuel industry
- △ : Mines
- □ : Centers of metallurgy
- O : Machinery and metal-working plants
- ? : Silicate and porcelain works
- ● : Chemical industry centers
- T : Textile industry centers
- F : Food industry centers
- v : Centers of various industries

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7: Columbia U. S-4, 5 1956 RHI Caucasia RHI

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7: Columbia U. S-4, 5 1956 RHl Caucasia RHl

Agricultural Potential

311 In the Caucasus all forms of rural economy are represented. In the South Caucasus 1/4, in the North Caucasus roughly 4/5 of the area is under cultivation. The main characteristics of the various economic (and political-administrative) units can be summarized as follows:

Azerbaijan SSR: Farming concentrated on foothills, and more recently in the valleys; agriculture requires irrigation; same features are characteristic for High-Karabakh AO, and for Nakhichevan' ASSR, which is especially dry; Lenkoran' Lowland excels in subtropical crops.

Armenian SSR: The volcanic soil combined with irrigation assures a great productivity to the area; agriculture is concentrated in mid-Aras valley, especially around Yerevan, and in the north in Lori steppe.

Georgian SSR: Though the major part of the republic is still covered by forests, pastures, and arid mountains, the agricultural importance of the area is great; subtropical crops, industrial crops: tobacco, and wine are the chief products of Georgian economy; the agricultural areas are: the Black Sea littoral, the Kura valley, especially between Gori and Tbilisi, and Kakhetia; of the subunits both the Adzhar ASSR, and the Abkhaz ASSR are rich in tobacco and in subtropical crops.

311 Astrakahan' Oblast: Because the oblast has concentrated on fisheries and the fishing industry, the importance of agriculture and even of stock-raising is minor; since the transfer to the predominantly agricultural Stavropol' Oblast of its western rayons, where most of its agriculture and stock-raising was situated, the fishing character of the oblast has been further accentuated; agriculture is concentrated in the irrigated Volga-Akhtuba lowland, completely surrounded by a semi-desert area.

Groznyy Oblast: The importance of agriculture due to the oilfields and oil industry is only secondary; agriculture is concentrated along the Sundzha River and produces cotton among other crops.

Dagestan ASSR: Due to climatic conditions agriculture needs irrigation; it is concentrated especially on the foothills and produces fruits and subtropical crops.

Stavropol' Kray: Chiefly agricultural area; its extreme western part is humid, whereas the bulk of the kray, the eastern part, is dry; this difference in climate explains a certain disparity in the agriculture; the main agricultural activity is grain farming; of the sub-units the Cherkess AO is in the humid zone, whereas the Kabardian ASSR and the North Ossetian ASSR are in the dry zone; the North Ossetian Republic excels especially in corn.

311 Krasnodar Kray: The geographical structure of the kray secures to it a great agricultural variety; the sea coast is subtropical, the mountains along this seacoast are covered by forests, whereas the steppe beyond the forests with its black soil is one of the most fertile regions of the USSR; the only sub-unit of the kray, the Adyge AO belongs to the steppe zone.

Rostov Oblast: This oblast formerly included two quite distinct regions; a very dry south-eastern part with agricultural features similar to the eastern Stavropol' Kray, and a more humid northern part which is a kind of continuation of Ukraine; this oblast has recently been broken up, with the northern part forming a new unit, and only the more homogeneous south-eastern part around Sal'sk and the lower-Don valley remaining in the Rostov Oblast; in the remaining part grain farming and sunflowers are especially characteristic.

*

311 A clear picture of the agricultural poten-
243 tial of the area, is best given in the form of a list:

Wheat: The main areas are the North Caucasus, in Azerbaijan the northern side of the Kura valley, and in the south the region along the state boundaries. In Trans-caucasia, grain is in general subordinated to industrial and subtropical crops. Wheat is obtained

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243 mostly by dry farming methods, though in Azerbaijan and Dagestan it is cultivated in irrigated lowlands as well. It is winter wheat which is commonly cultivated. Spring wheat occurs in the Steppe region of the Krasnodar Kray, where there is a very low snow precipitation, and in the irrigated parts of Dagestan. As to the quality, the best wheat is produced along the Kuban River, especially in the Cherkess AO.

Rice: This crop was grown originally only in the South Caucasus. Nowadays it is cultivated in the North Caucasus as well. In the North Caucasus especially the area along the lower Kuban, between Krasnodar and the delta, then the flooded area along the Terek River, and especially the region around Kizlyar are the main rice areas.

Rye: Cultivation area mainly in the Astrakhan' Oblast on both sides of the Volga and Akhtuba Rivers.

Oats: Cultivated mainly in the Stavropol' Kray, in Groznyy Oblast, in the steppe areas of the Krasnodar Kray, and in the northern corner of Dagestan.

Corn: Cultivation area mainly in the North Caucasus. In the South Caucasus (Abkhaz ASSR, Imeretia) it is gradually giving place to subtropical crops. In the North Caucasus, a belt embracing the north and northeastern parts of the Krasnodar Kray, the Cherkes AO, the North Ossetian ASSR, Groznyy Oblast, and the

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243 Dagestan ASSR is the most important corn producing area. In the belt itself the Cherkess AO, and the North Ossetian ASSR, the corn republic, are the chief producers. In Dagestan, corn is very often cultivated in irrigated areas.

Barley: Almost universal in the Caucasus. In the South Caucasus especially the higher parts of Armenia produce barley. In the North Caucasus the south eastern parts of the Rostov Oblast, and the region in the northern parts of the Krasnodar Kray are important. In Dagestan it is cultivated with dry farming methods.

Millet: Cultivated only in the North Caucasus.

311
244 Potatoes: Important areas both in South and North Caucasus. In the South Caucasus the region around Yerevan is the most important. In addition to this important region are the areas around Tbilisi, and Baku. In the North Caucasus the Kabardian ASSR, the North Ossetian ASSR, the southern parts of the Groznyy Oblast, the north-western part of Dagestan, and the northern areas of the Rostov Oblast are important.

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245 Horticulture and fruit-gardening: Truck-gardening is characteristic for suburban areas, or those which are in the vicinity of big health resorts. One should mention as main truck-gardening centers the Baku, Yerevan, Rostov and Pyatigorsk areas. Fruit-gardening is widespread in the whole Caucasus. In the

311
245 South Caucasus the Armenian SSR, and the Nakhichevan' ASSR, along the irrigated Aras valley, Kolkhida, Imeretia, northern parts of Kakhetia, in Azerbaijan the High Karabakh AO, and the Kuba region are especially important. In the North Caucasus almost the whole Krasnodar Kray, in the Stavropol' Kray the Kuban, and the upper and middle Kuma valley, the North Ossetian ASSR, and the Groznyy Oblast along the Terek and Sundzha Rivers, Dagestan, and the Akhtuba region of the Astrakhan' Oblast are the chief producers of fruit. One of the characteristic features of Caucasian fruit-gardening is the extensive use of irrigation (Aras, Kura, Kuban, Kuma, Terek, Sundzha, and Akhtuba valleys).

Vineyards: The Caucasus is a famous wine-growing area; soil conditions and climate make it ideal for viniculture. In the South Caucasus the vineyards of Armenia, Nakhichevan', Karabakh, and north Azerbaijan are well known. Yet the most important wine producing area in the South Caucasus is Georgia. Imeretia and Kakhetia are world-famous for their wine. In addition to these places one also finds wine in the Bolnisi area. In the North Caucasus the main wine producing areas are: the littoral parts of the Krasnodar Kray, the area northward from Krasnodar, in the Stavropol' Kray the valley along the Kuma River, the Cherkess AO, the middle Terek valley, the region around Kizlyar, and

211
245 the Caspian littoral in Dagestan. In the north, along the northern shores of the Don River, there extend the vineyards of the former Cossacks of Don. In this area Tsimlyanskaya, and Razdorskaya are the most important wine-growing centers. One part of the vineyards, those along the Kuma and Terek Rivers, and those in Dagestan are irrigated.

Citrus: Tangerines, oranges, lemons, grapefruit were introduced into the Caucasus on an industrial scale during the Soviet period. In the South Caucasus the Lenkoran' Lowland, the Georgian Black Sea littoral, the Abkhaz ASSR and the Adzhar ASSR are the citrus-growing areas. The Adzhar Republic is the most important citrus center of the USSR. In the North Caucasus the Black Sea coast of the Krasnodar Kray is the only citrus-growing area.

311 Sugar beets: The main sugar-beet area
249 is the Kuban valley, northward from Krasnodar. In the South Caucasus this crop was recently introduced to Imeretia (Georgian SSR), and to Armenia.

Tobacco: Especially the Turkish kind is cultivated both in the South and in the North Caucasus. In the South Caucasus the tobacco fields are concentrated in three different areas. One is in Azerbaijan between Zakataly and Kuba. The second is in Armenia and in Nakhichevan' ASSR along the Aras River. The third is in Kolkhida and in the Adzhar and

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249 Abkhaz republics. In the Adzhar Republic the fields are located around Batumi and in the higher part of the republic. The Abkhaz area, which produces the best quality, is one of the major tobacco-growing areas of the USSR. The center is Sukhumi. In the North Caucasus the main tobacco-growing areas are in the Krasnodar Kray. The fields there are mostly concentrated in the Adyge AO and along the Black Sea littoral.

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246 Tea: It is one of the recently introduced subtropical plants, and is cultivated mostly in the South Caucasus. The chief tea-growing areas are the Abkhaz and Adzhar republics and Kolkhida. The Adzhar ASSR is the most important tea-growing area in the USSR. In eastern Trans-caucasia an important tea-growing area is the Lowland of Lenkoran'. In addition to these there are some less important tea-growing areas in the interior of Georgia and Azerbaijan as well. In the North Caucasus tea is cultivated only on the Black Sea coast of the Krasnodar Kray, an area adjacent to the tea-growing districts of the Abkhaz Republic.

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248 Cotton: The most important fiber plant under cultivation in the Caucasus. It came originally from Central Asia to the South Caucasus. During the Soviet period its cultivation crossed the 43rd parallel and was pushed as far as 47° N. Though the Caucasian crops is the second largest in the USSR, production

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248 is low and cannot be compared with that of Central Asia. In the South Caucasus it is cultivated in irrigated areas. The most important cotton fields are along the Kura and Aras Rivers (Azerbaijan, Nakhichevan' ASSR, Armenia) in which cotton is rotated mostly with alfalfa. Eastern Azerbaijan cultivates especially the long-staple cotton. In other areas of the South Caucasus Kakhetia is trying to introduce cotton. In the North Caucasus cotton cultivation is centered in three distinct areas. One is the coastal area along the Sea of Azov. This area reaches almost to Krasnodar and Rostov and cultivates cotton with dry methods. The second area is in eastern parts of the Stavropol' Oblast, in the middle belt of the Groznyy Oblast and in the northern parts of Dagestan. Cultivation here too is based mostly on dry methods, only the fields around Kizlyar and Khasavyurt being irrigated. The third cotton-growing area of the North Caucasus is the Akhtuba region and the Volga Delta.

Northern Hemp: Occurs in the Kabardian and North Ossetian republics.

Kendyr': A domesticated fiber plant from Central Asia cultivated mostly in the northern parts of the Krasnodar Kray and in the western parts of the Stavropol' Kray. The plant is used in the manufacture of a very resistant cloth.

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231 Maulberry: The trees necessary for silk culture are cultivated especially in the

1/ [sic. Mulberry?-- Analyst]

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231 South Caucasus: in Middle Azerbaijan; around the cities and town like Zakataly, Nukha, Yevlakh, Kirovabad, Barda, Udzhary, Mir-Bashir, Shusha. One also finds a very important center of silk culture in Kolkhida and Imeretia along the Tbilisi-Sukhumi railroad line.

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248 Kenaf: A recently introduced fiber plant from India and used as a substitute for jute is cultivated on a commercial scale only in the North Caucasus. The main area of cultivation is Krasnodar Kray around the Adyge AO where it was first cultivated. In addition to this it occurs in the western parts of the Stavropol' Kray, in Dagestan along the Caspian coast, and in the vicinity of Kuba (Azerbaijan). Less important are the kenaf fields in the North Ossetian Republic and along the Akhtuba River.

Ramie or Chinese Nettle: Another recently introduced fiber plant, cultivated nowadays on commercial scale in Kolkhida, north and southward of Mikha-Tskhakaya. To a smaller extent it is well known in the Lenkoran' Lowland as well.

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249 Castor bean: This plant is cultivated in the North Caucasus, especially in the steppes of the Krasnodar Kray, in the southern parts of Rostov Oblast, in the northern parts of Stavropol' Kray, in Dagestan around Derbent, and in the northeastern corner of Azerbaijan around the town of Kuba.

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245 Olives: Olive trees are grown in Azerbaijan around Baku and Sal'yany, in Armenia in the Yerevan basin, and in Dagestan along the sea coast.

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244 Peanuts: The plant grows in two distinct areas in industrial amounts. One is the western steppe region of the Krasnodar Kray, the other is in the dry East Azerbaijan.

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249 Perilla: A plant the oil of which is used especially in the painting industry. The centers of production are the areas north and westwards from Tbilisi, and in the vicinity of Yevlakh (Azerbaijan).

Tung tree: This tree, which comes from China, furnishes an important ingredient of varnishes and lacquers. It is cultivated in Kolkhida, in the Abkhaz ASSR, and in the Lowland of Lenkoran'.

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244 Sunflower: A favorite plant especially in the North Caucasus. It likes the dry and sunny steppes and is produced mostly in the Rostov Oblast, in the Krasnodar Kray (in the steppe region), and in the western parts of the Stavropol' Kray. The sunflower of the Cherkess AO is of excellent quality.

Soybeans: Introduced originally from Manchuria. In the Caucasus soybeans are cultivated in the Kuban valley northwest from Krasnodar, and in the Groznyy Oblast.

Linseed-oil Flax: The product of the plant, linseed oil, is used in the painting industry, in medicine, etc. This flax is

•311 cultivated in Rostov Oblast, in Stavropol'
249 Kray (Kabardian ASSR, North Ossetian ASSR), and in Dagestan.

Volatile oil yielding plants: The essential oils used in perfumes, flavoring, or medicine are extracted by various methods from various plants cultivated almost everywhere in the Caucasus.

Kok-sagyz: An important rubber-bearing industrial plant coming originally from Central Asia now is cultivated around the Volga River.

Krym-sagyz: Another imported rubber-bearing plant, is cultivated chiefly in the north western corner of the Krasnodar Kray, and in the Kabardian and North Ossetian autonomous republics (tau-sagyz).

Guayule: The rubber-bearing plant of the South Caucasus. This shrubby plant is native to arid regions of Mexico and the southwestern United States; in the South Caucasus it is cultivated in the arid regions of the Azerbaijan SSR.

Saffron: The flower, the stigmas of which are used as a coloring matter, flavoring, perfume, and medicine, is well known in the North Caucasus. It is cultivated chiefly in the southern parts of the Rostov Oblast, and in the northwestern parts of the Stavropol' Kray.

Bay: One of the evergreen trees cultivated in the South Caucasus. The tree is cultivated especially along the Rion River, and

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244 around the headwaters of the Kura River.

Cinchona: This subtropical tree, which is the source of quinine, was imported from South America. It is cultivated in the Kura valley westwards from Gori.

Eucalyptus: Occurs in Kolkhida, along the Rion River, then around the headwaters of the Kuban River, and on the Lowland of Lenkoran'. The tree is used as building material, and as a source of oil used in medicine and perfumery.

137 Bamboo: Occurs only in Kolkhida.

Of the other tropical, or subtropical trees, shrubs, or plants the palms, the cactus, and the magnolia are those which occur in significant amounts in the South Caucasus.

a.1 Wheat, Rice

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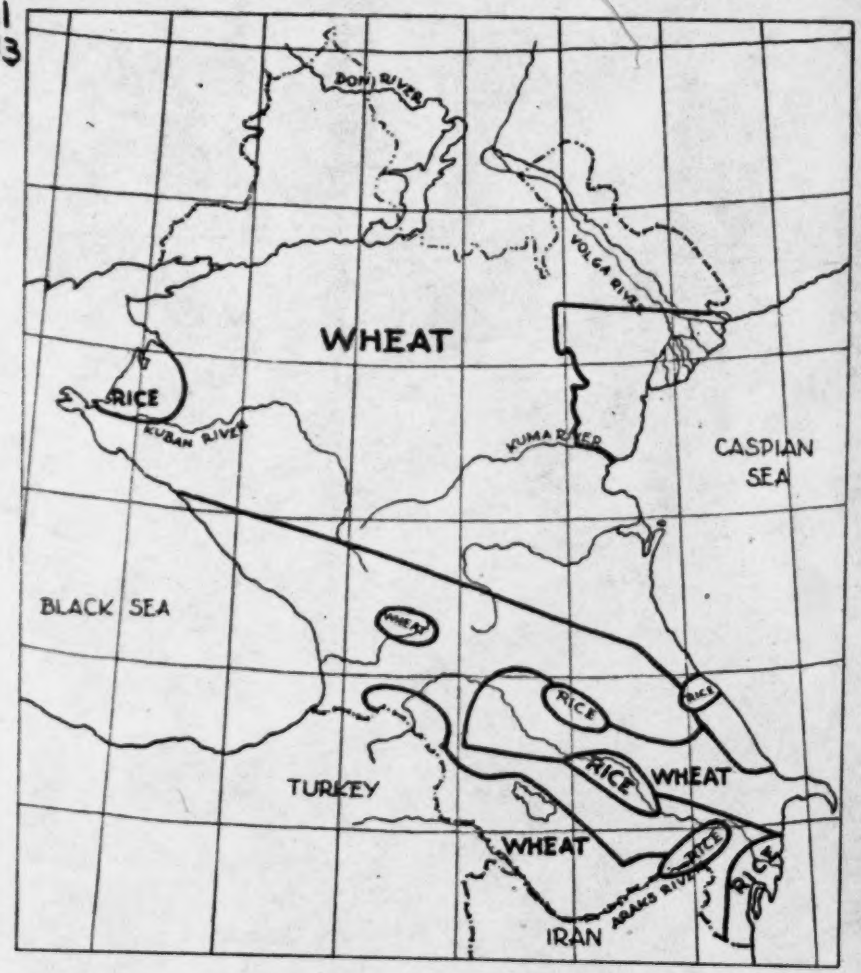

a. 2 Rye, Oats

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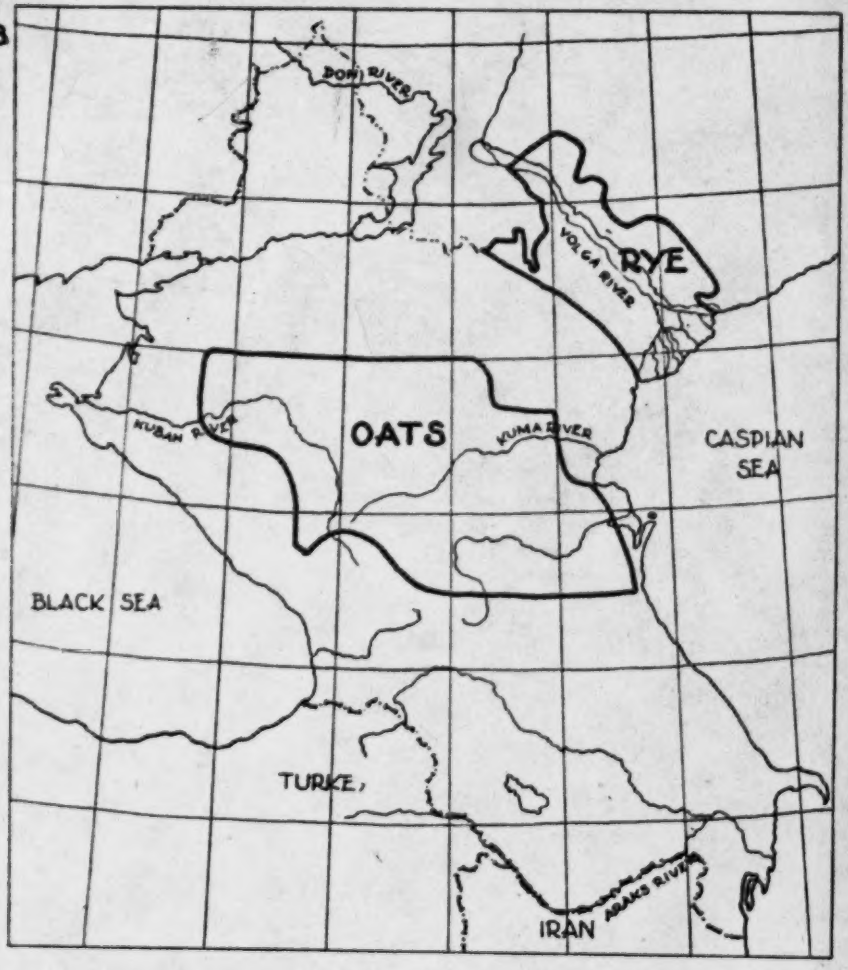

a. 3 Corn

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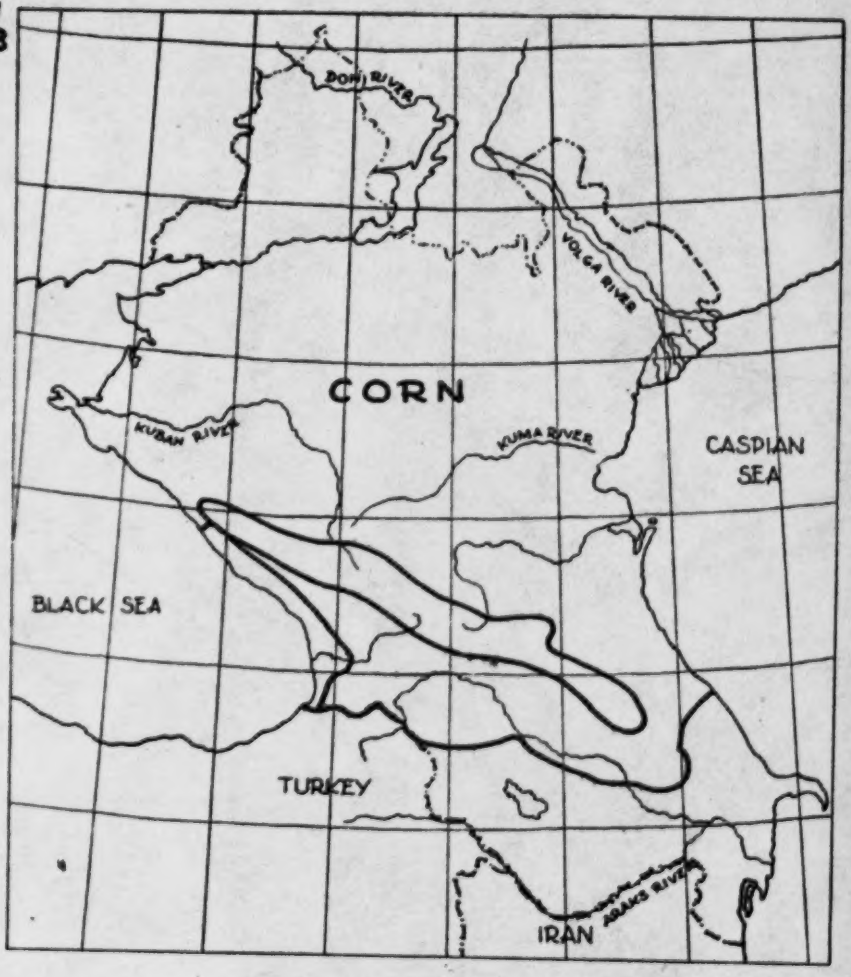

a. 4 Barley

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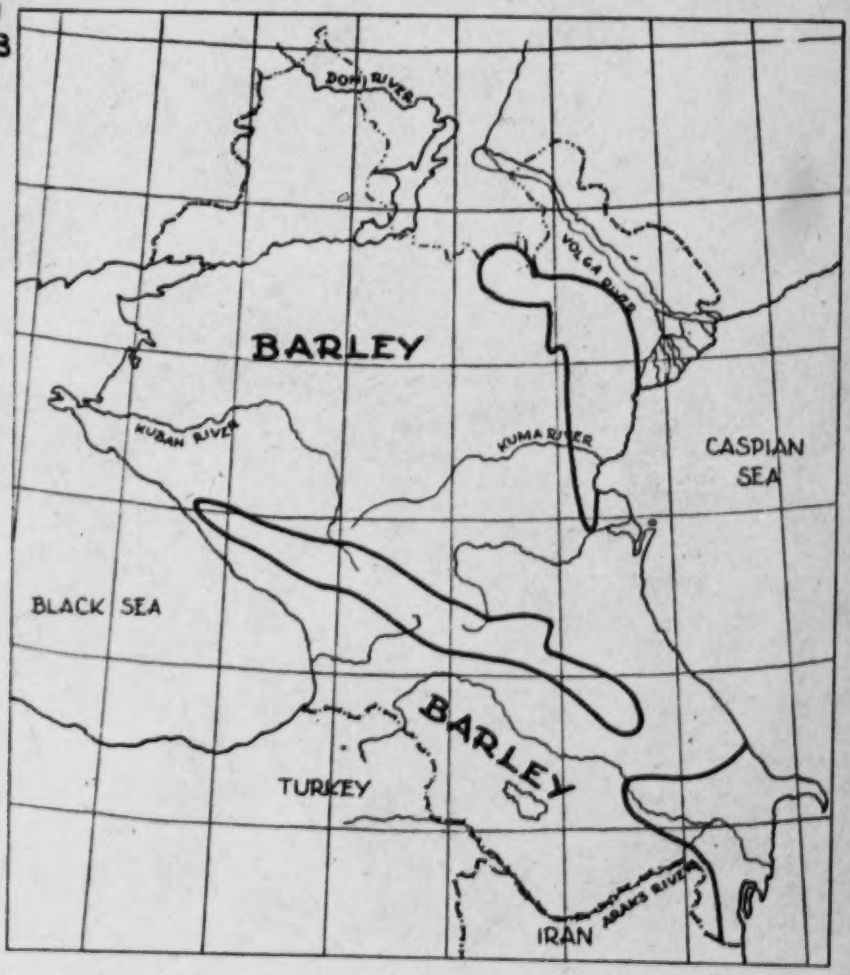

a. 5 Millet

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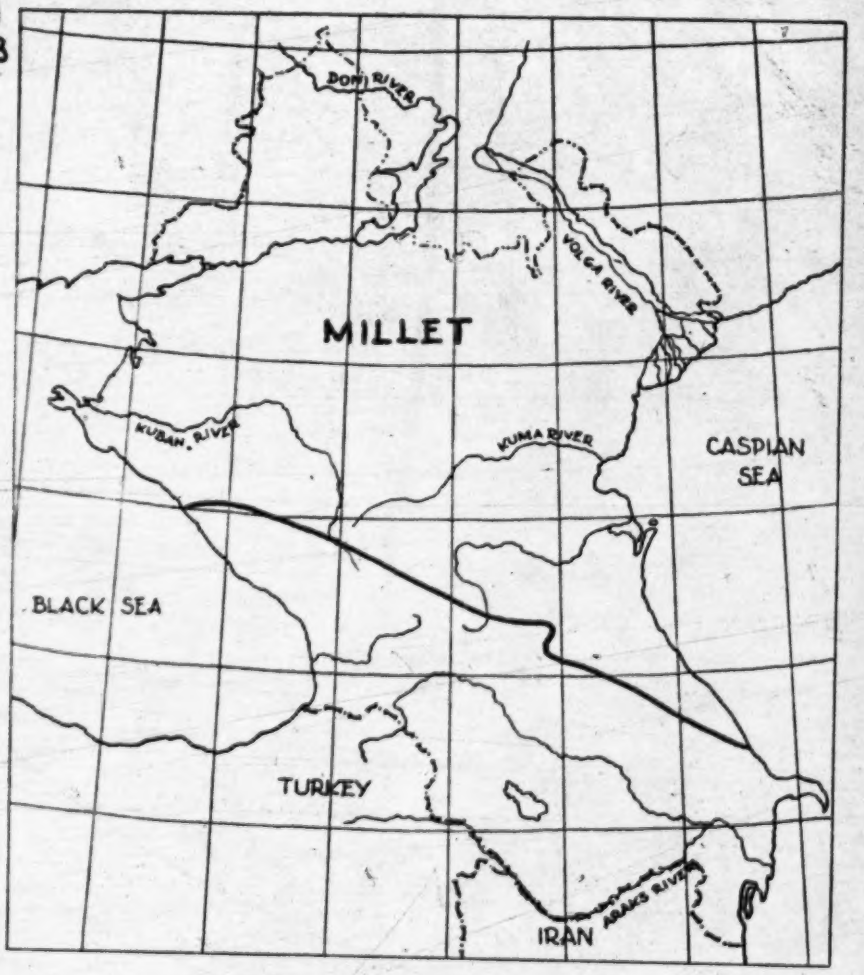

a. 6 · Potatoes

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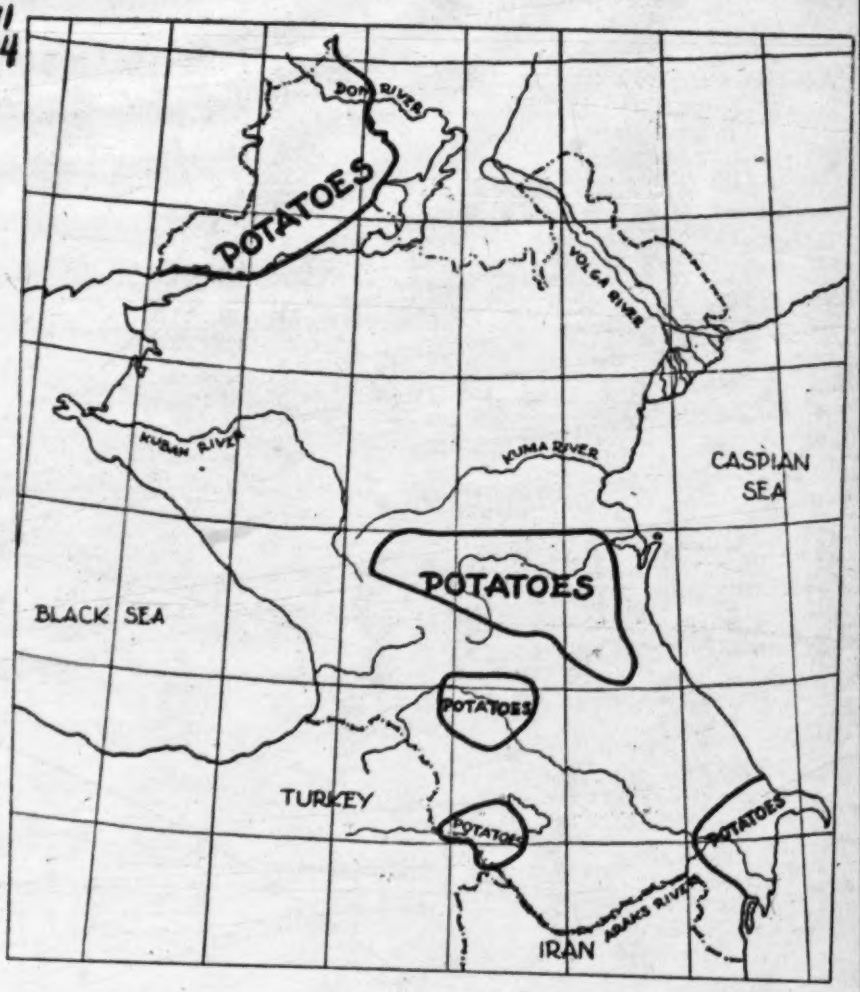

a. 7 Horticulture and Fruit-gardening

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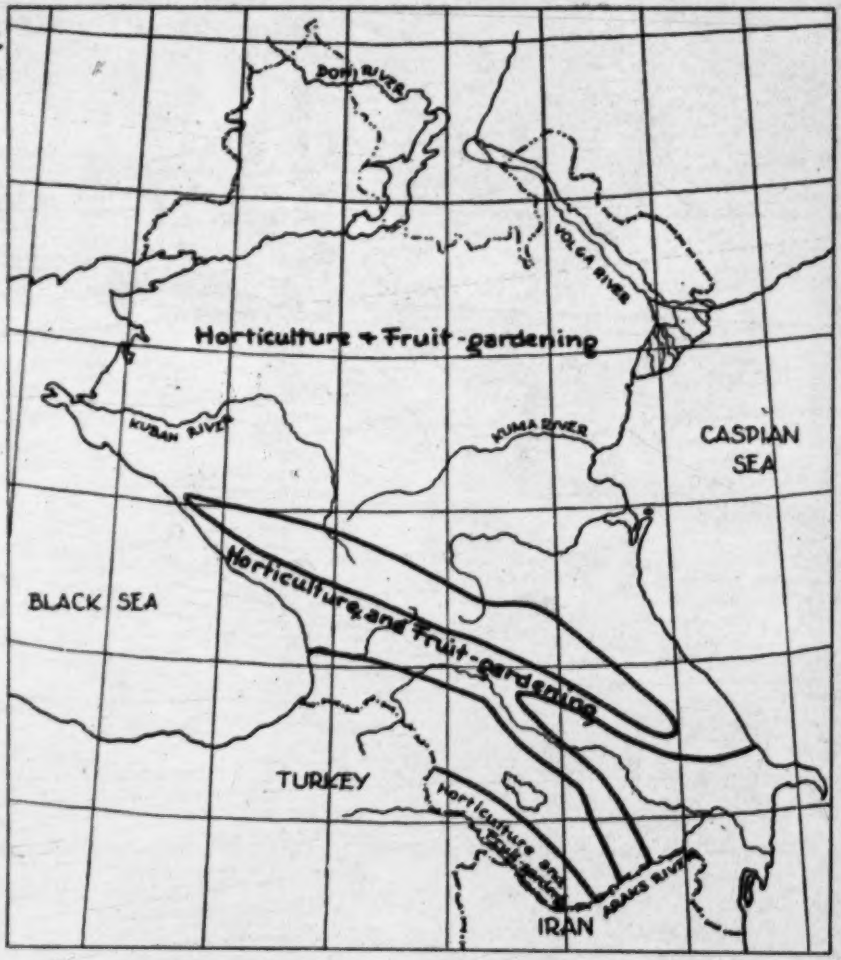

a, 8 Vineyards, Citrus

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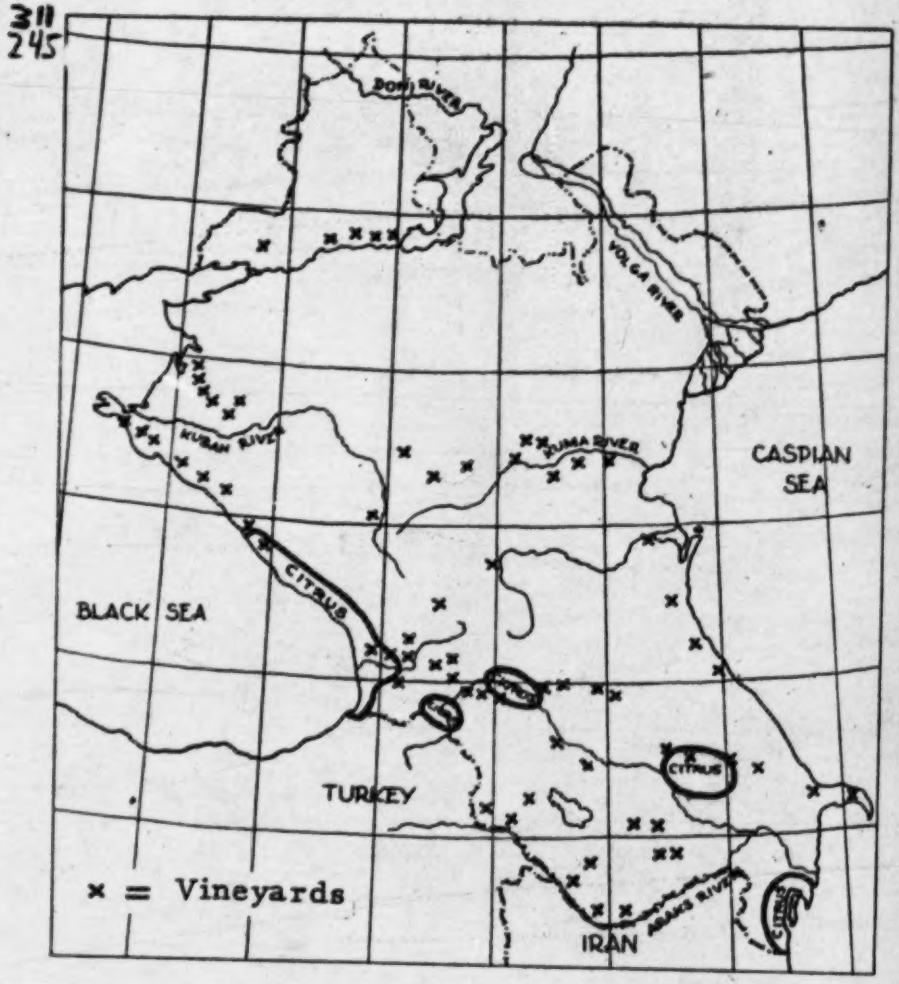

a. 9 Sugar Beets

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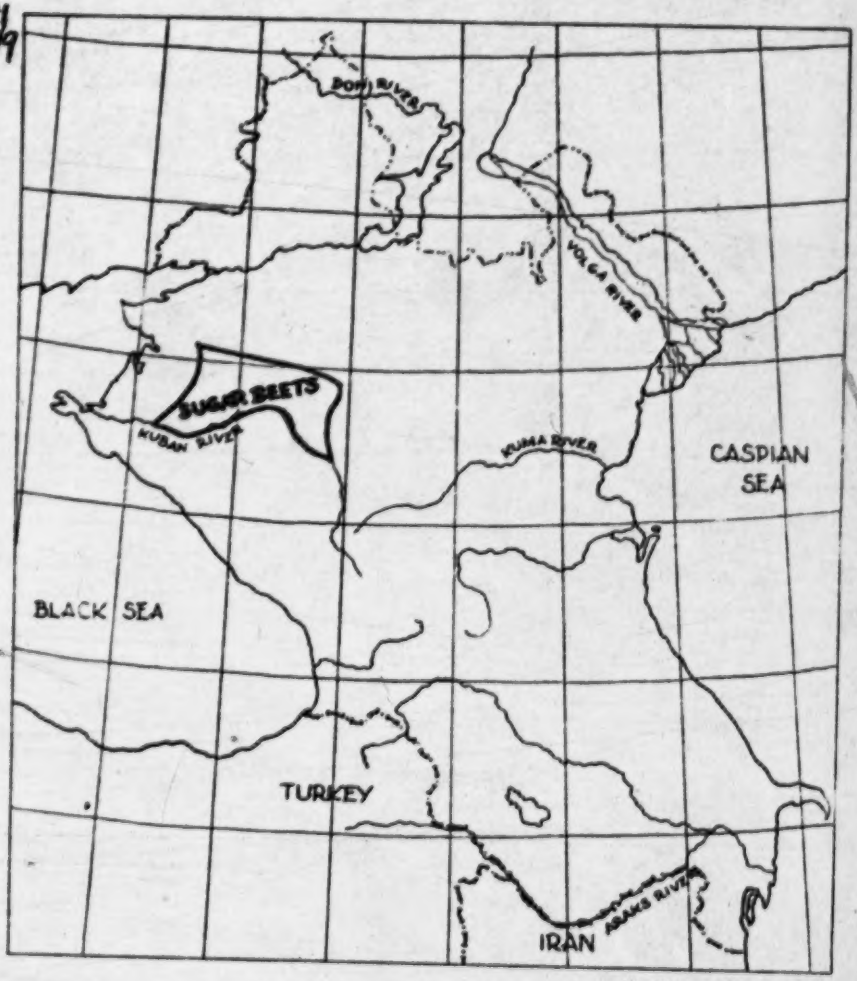

a. 10 Tobacco

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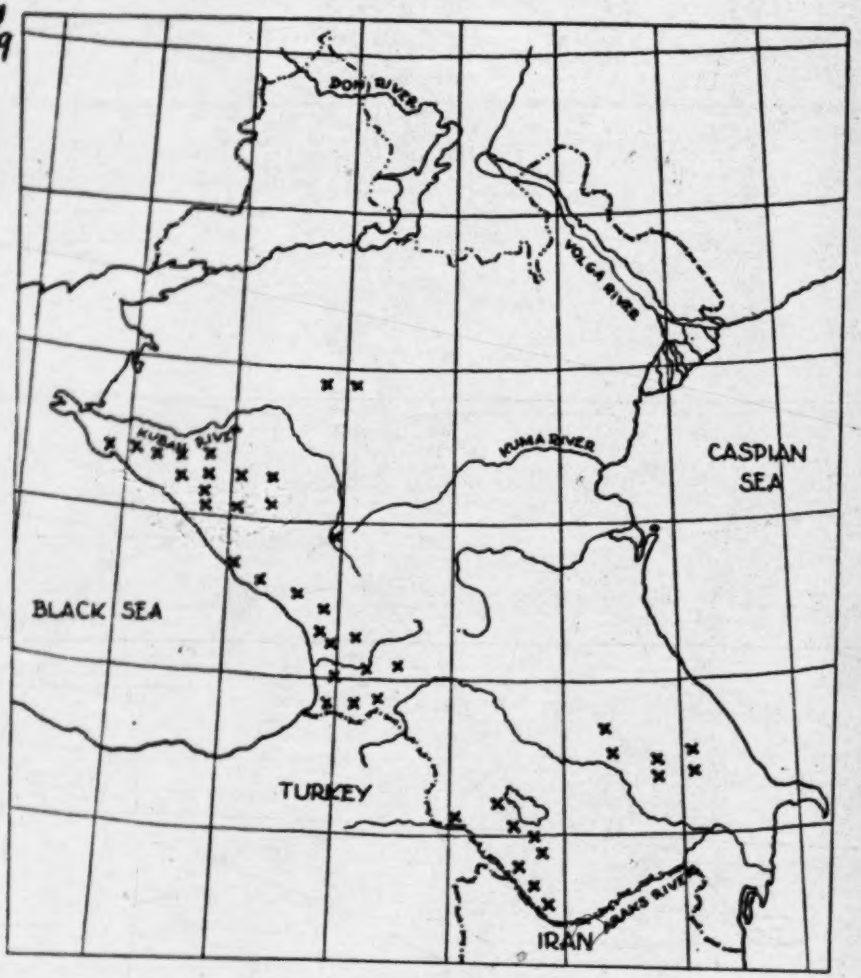

a. 11 Tea

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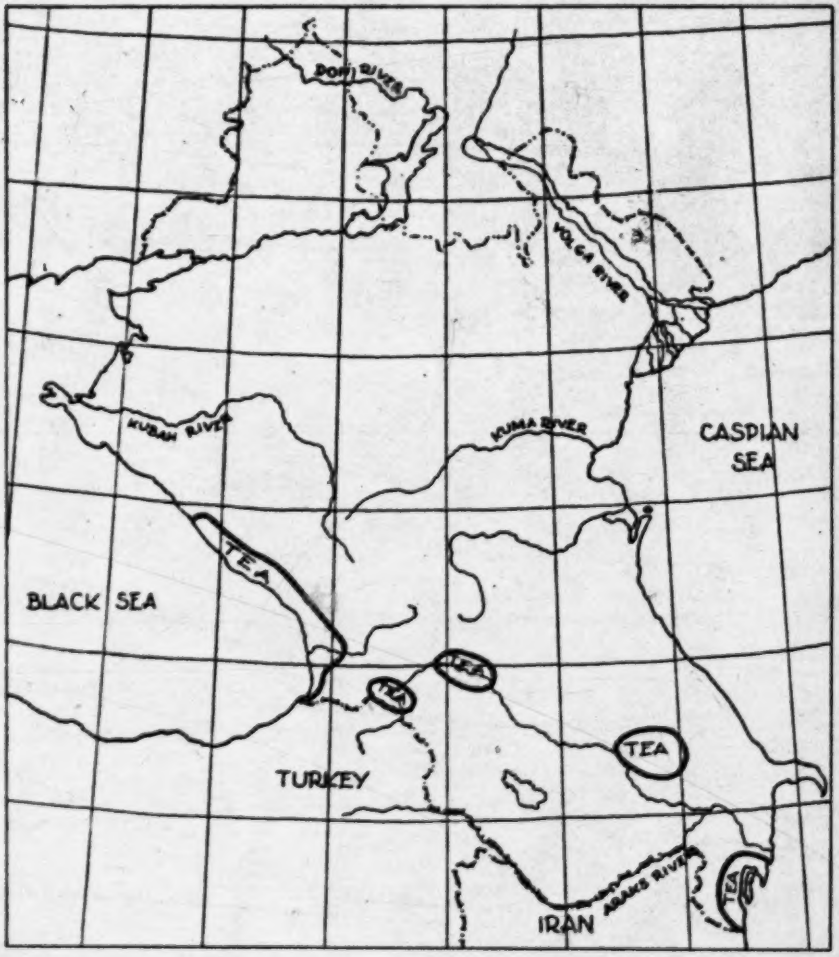

a. 12 Cotton

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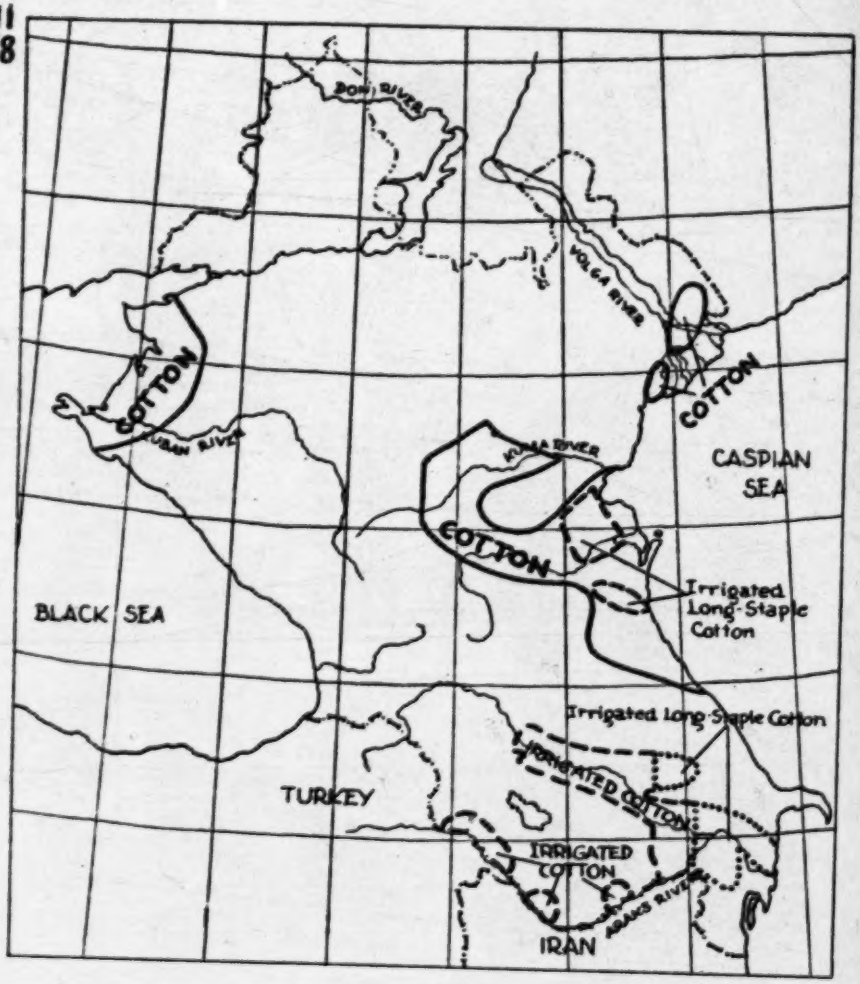

a. 13 Northern Hemp, Kendyr', Silk Culture

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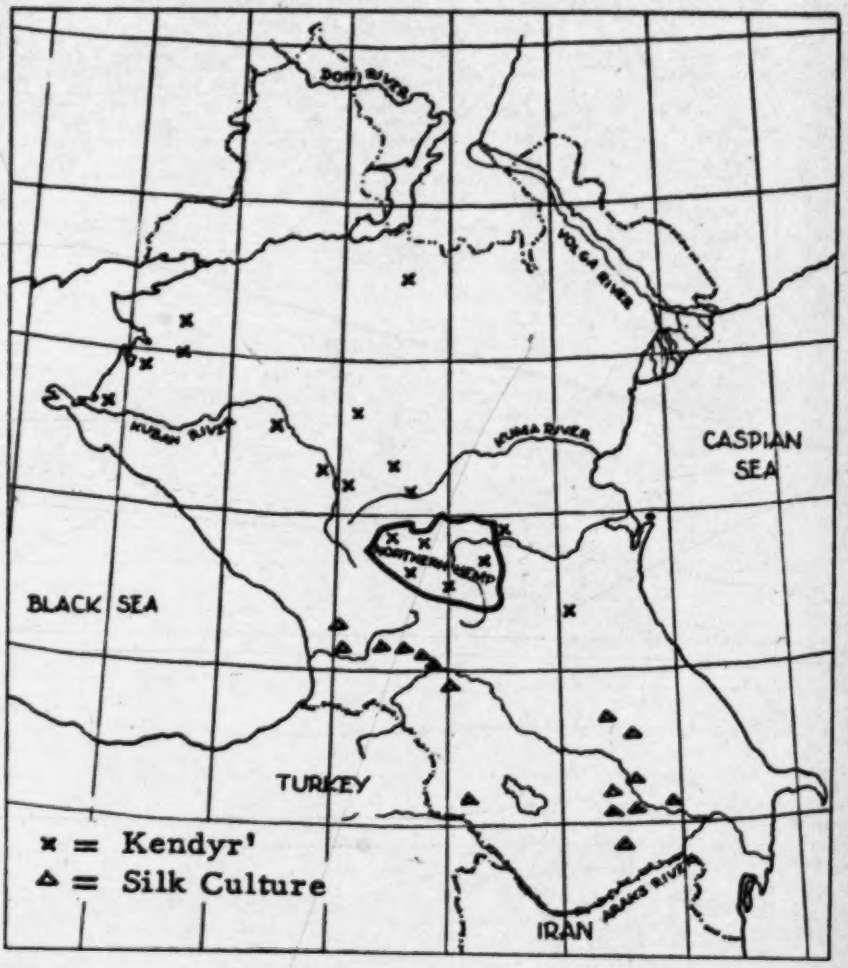

a. 14 Kenaf, Ramie

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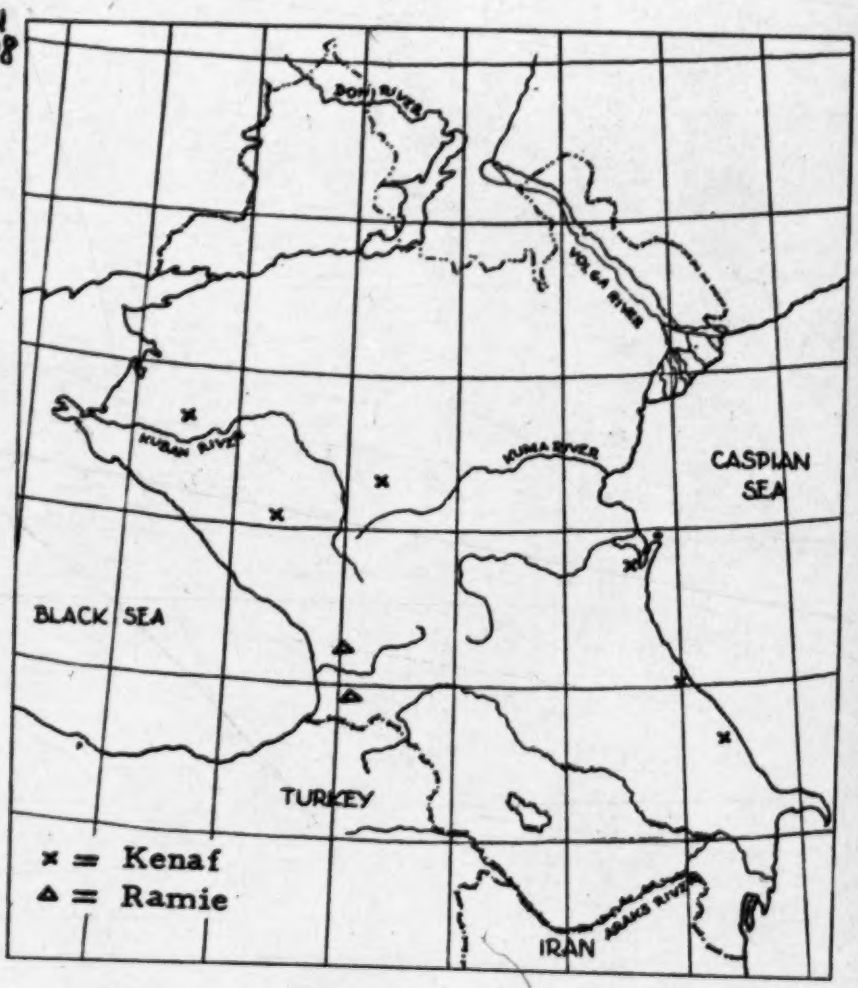

a. 15
Castor Oil Plants, Olive Trees, Peanuts, Perilla, Tung Trees

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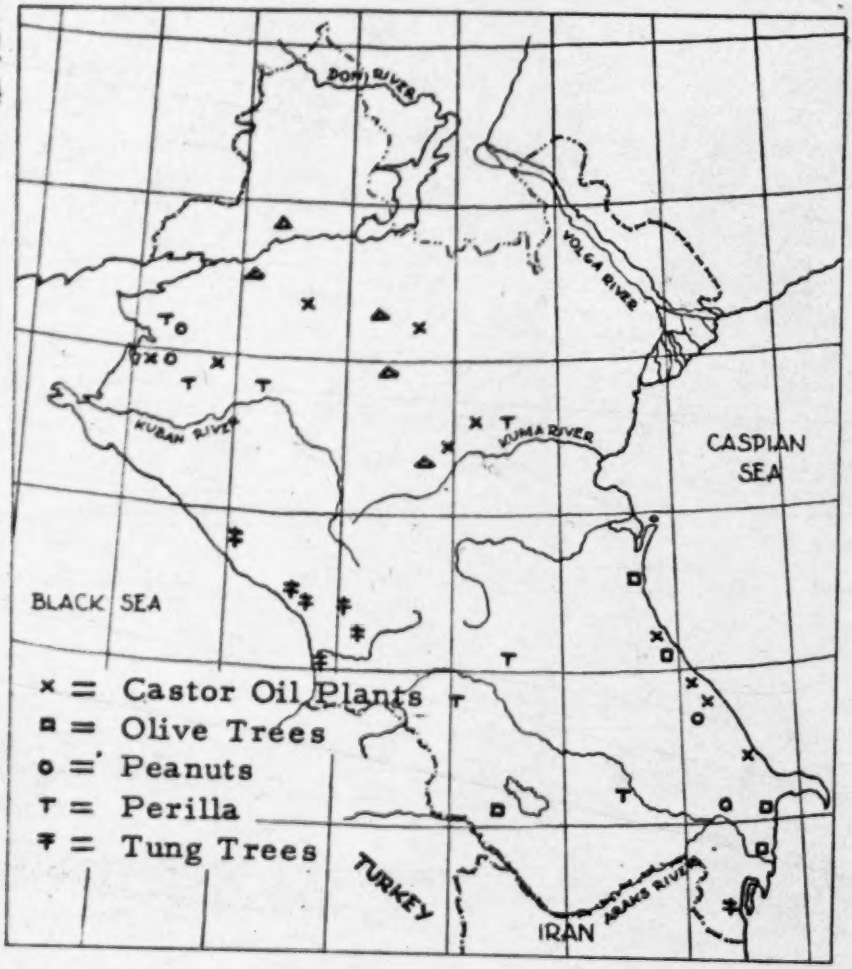

a. 16

Sunflowers, Soy Beans, Linseed Oil Flax

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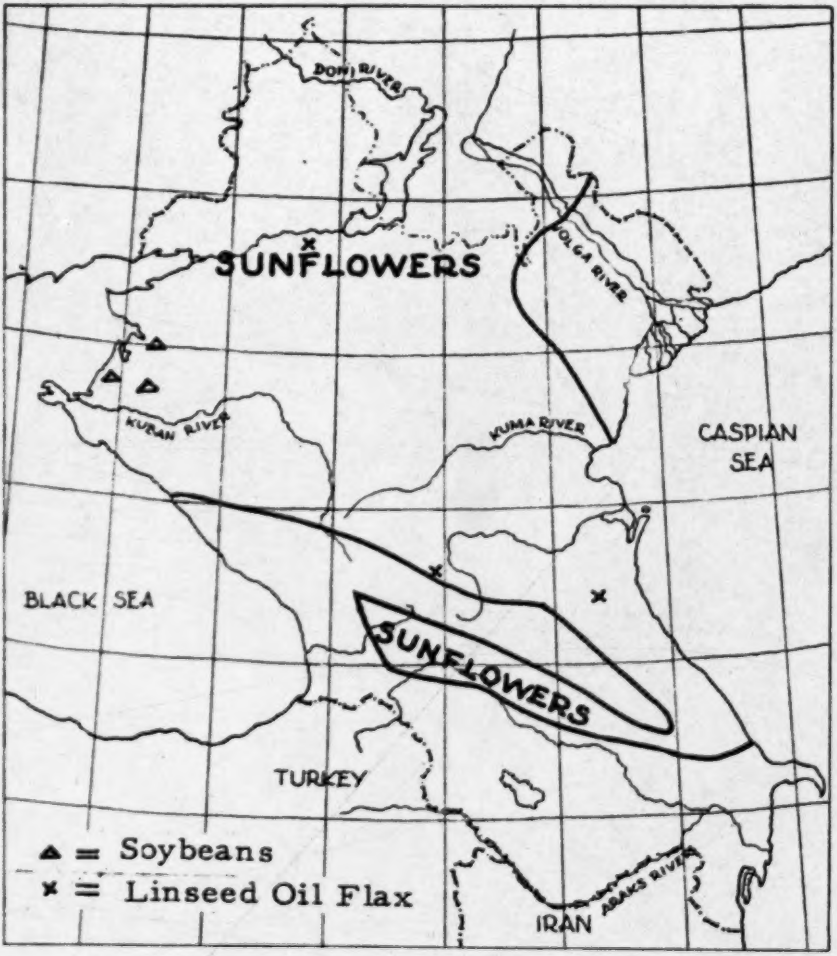

a. 17 Volatile Oil-yielding Plants, Saffron

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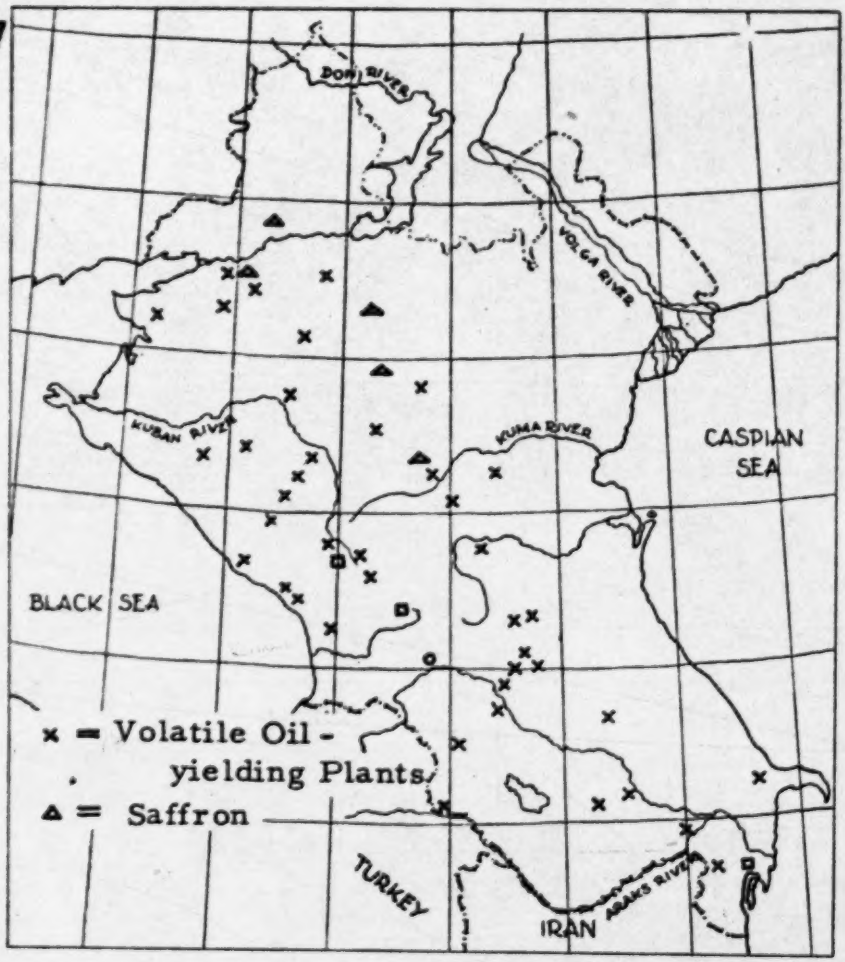

a. 18 Kok-sagyz, Krym-sagyz, Guayule

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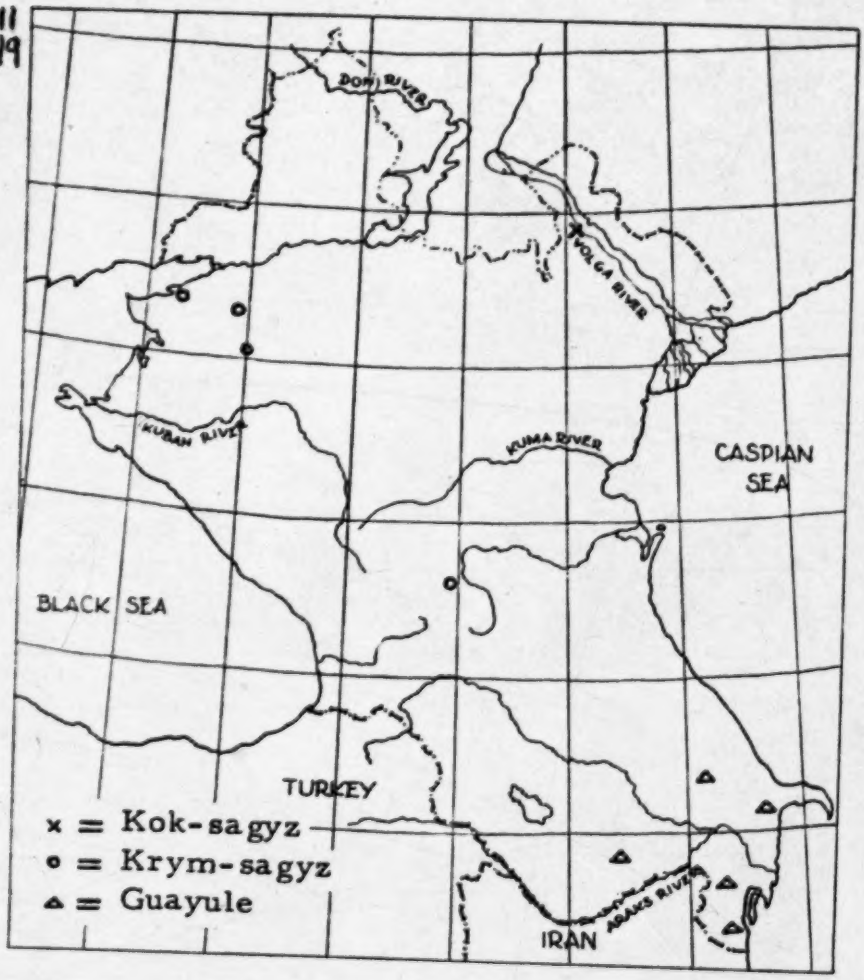

a. 19 Cinchona, Bay, Eucalyptus, Bamboo

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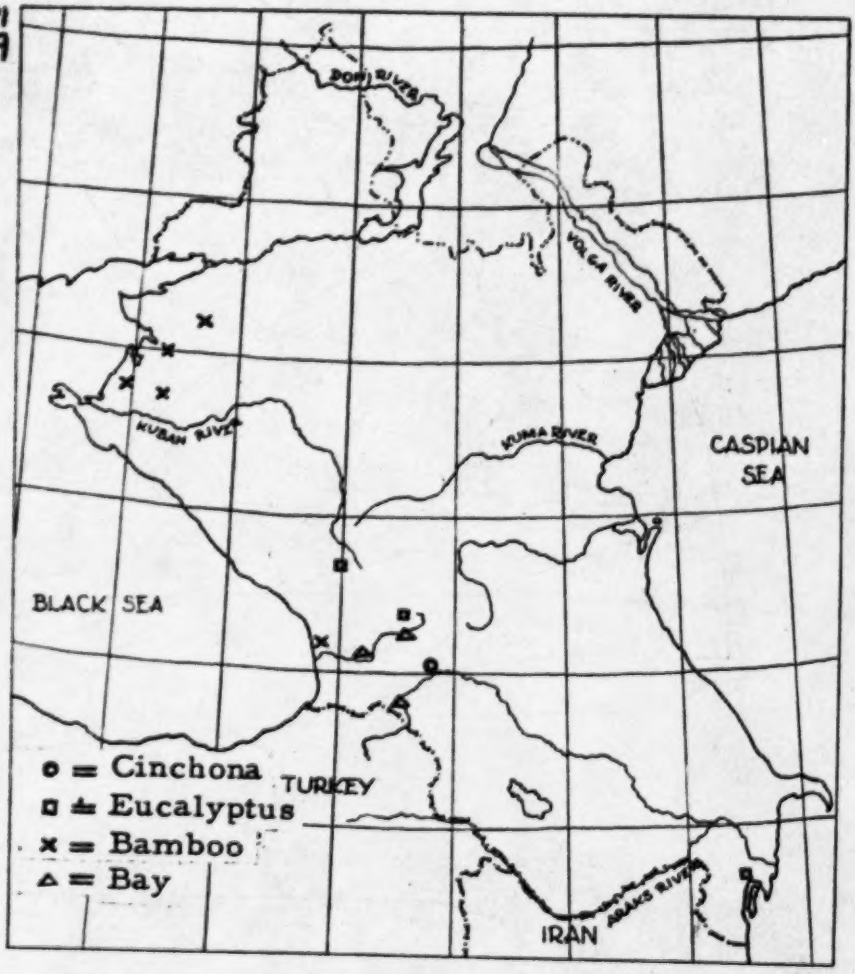

Stock-Raising

311 234 Stock-raising is the principal economic activity in the dry eastern steppes of the North Caucasus, and in the mountain pastures, which are mostly located at high altitudes. In the lowlands of Azerbaijan on the other hand, stock-raising is seasonal and is combined with other rural activities. Caucasian stock-raising was formerly pretty much nomadic, but is now -- as a result of the introduction of fodder crops, irrigation and other agricultural improvements -- assuming a more sedentary character. The principal stocks raised are various types of dairy and beef cattle, and various kinds of sheep. Sheep are bred not only for wool and mutton, but also for dairy products. Caucasian cheese (of the Swiss type) is famous throughout the entire USSR. Horses are relatively few in number. As draft animals in the North Caucasus oxen are common, whereas in the South Caucasus buffaloes are used. Transportation depends on mule, donkey, and in certain areas on camel, rather than horses. The fodder used in stock-raising varies according to the area and includes grass, grain, rootcrops, waste products, etc. For hogs, corn is used throughout the whole Caucasus.

Taking the various economic and political-administrative units one by one, the distribution of stock-raising is as follows:

311
231 Azerbaijan SSR: The lowlands along the Kura and Aras Rivers are the most important winter grazing grounds, not only for Azerbaijan, but for Armenia as well. Of the sub-units, North Karabakh specializes in cattle, sheep, and mules, whereas Nakhichevan' ASSR raises primarily sheep, for the most part in the mountains.

Armenian SSR: Important especially for its summer grazing grounds, on which the livestock of both Armenia and Azerbaijan depend. Armenia is famous for its cheese.

Georgian SSR: Mountain pastures are the basis of Georgian stock-raising, which is important in all the sub-units except the Abkhaz ASSR where, due to health resorts and extensive growing of subtropical crops, only dairy farming has survived.

Astrakhan' Oblast: This area is rich in herds of cattle and sheep, raised mostly for meat and mutton. Camels are used extensively as a means of transportation.

Groznyy Oblast: Stock-raising is concentrated in the mountains (cattle and goats) and in the northern steppe areas (sheep-raising).

Dagestan ASSR: Stock-raising constitutes the main economic activity only in the mountains which are rich in Alpine pastures.

Stavropol' Kray: Livestock-raising is typical for the bulk of the kray. In the southern and southwestern corner, in the health resort section, dairy-farming is practiced. Of

311 231 the sub-units the Cherkess AO especially is a livestock-raising area. In the Kabardian ASSR, the principal stock raised is in the plain poultry, whereas the mountain pastures are devoted primarily to livestock, which latter also holds for the pastures of the North Ossetian ASSR.

Krasnodar Kray: The Kuban area and the steppe area are among the most active cattle-raising areas of the Caucasus. On the Black Sea coast dairy farming is common, centered especially around Gelendzhik. The Adyge AO is famous for good horses.

Rostov Oblast: Along the lower Don and in the Taganrog-Rostov-Shakhty area, the principal stock raised is dairy cattle. In the southern and southeastern parts of the oblast (i. e., in the Sal Steppe), beef cattle and horses are raised, whereas the eastern parts raise sheep.

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311 234 The distribution of the individual kinds of stock over the entire Caucasus is as follows:

Dairy cattle: Chiefly raised in the western third of the North Caucasus. In addition to this area, dairy-cattle raising is common in the mountains of the Stavropol' Kray (especially around the health resorts), and in the Groznyy Oblast.

311 231 Beef cattle: Typical especially for the dry areas of the North Caucasus, and for the whole of Trans-Caucasia. Areas with the most

311
231 extensive beef-cattle raising are: the Rostov Oblast, the Stavropol' Kray (in both cases the eastern parts), and the Astrakhan Oblast.

Goats: Goats are common in the South Caucasus, in the mountainous areas of the Armenian and Georgian republics. They are also bred in the mountains of the North Caucasus.

Horses: Relatively few and raised chiefly around the Lower Don, in the Kuban Lowland (Adyge AO) and in the mountainous parts of the Stavropol' Kray.

Mules, donkeys: These animals are chiefly bred in the South Caucasus, and along the slopes of the Greater Caucasus.

Camels: Are bred as transportation animals in Astrakhan' Oblast and adjacent areas.

Merino sheep: Several varieties of the Merino sheep are bred almost everywhere in the Caucasus. It is especially raised for its fine wool.

Karakul sheep: This breed of sheep native to Bukhara is bred in the Astrakhan' Oblast, in the southwestern parts of the Krasnodar Kray, and in the Armenian SSR, around Yerevan and Leninakan.

Mutton sheep: Sheep raised solely for mutton are rare in the Caucasus and are chiefly in the northern parts of the Astrakhan' Oblast.

Mutton-dairy sheep: Bred especially in the South Caucasus in the mountains of the Armenian, Georgian, Azerbaijan republics,

311
231 in Nakhichevan' ASSR, and in the area around Baku; in the North Caucasus the Stavropol' Kray is the only noteworthy area. In the southwestern parts of the Stavropol' Kray, the Karachay sheep is raised, whereas the northeastern parts prefer the Volosh sheep.

Hogs: Are raised mostly in the Western Caucasus; and sporadically in the Eastern Caucasus, although this is primarily a Muslim area.

Silkworms: Raised only in the South Caucasus, to wit, in Azerbaijan, in High Karabakh AO and in Western Georgia.

$a^{1}.1$ Dairy Cattle, Beef Cattle, Camels

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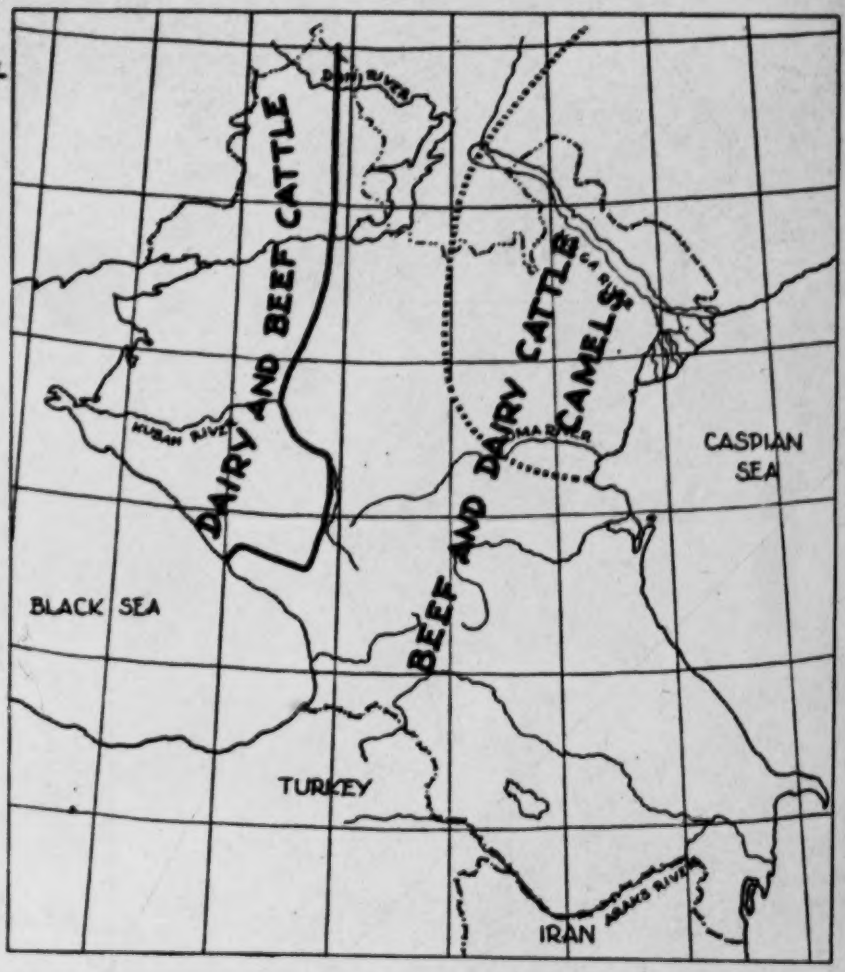

a[1].2 Merino Sheep, Karakul Sheep, Mutton Sheep, Mutton-Dairy Sheep

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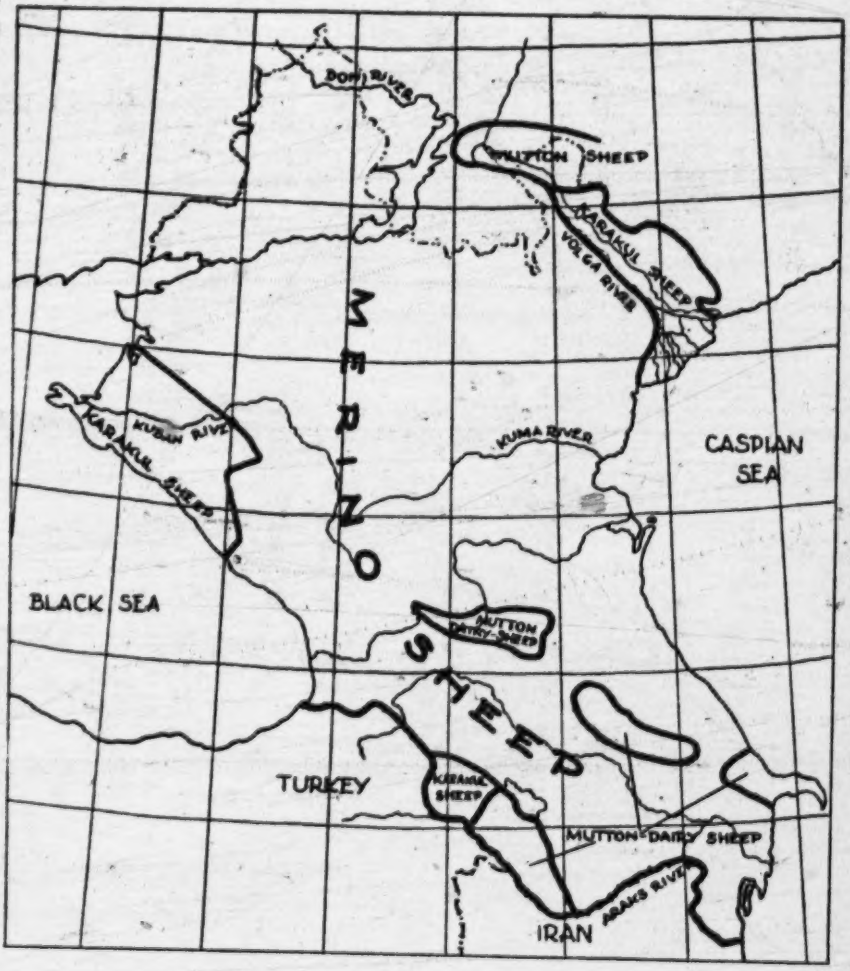

a[1], 3 Hogs

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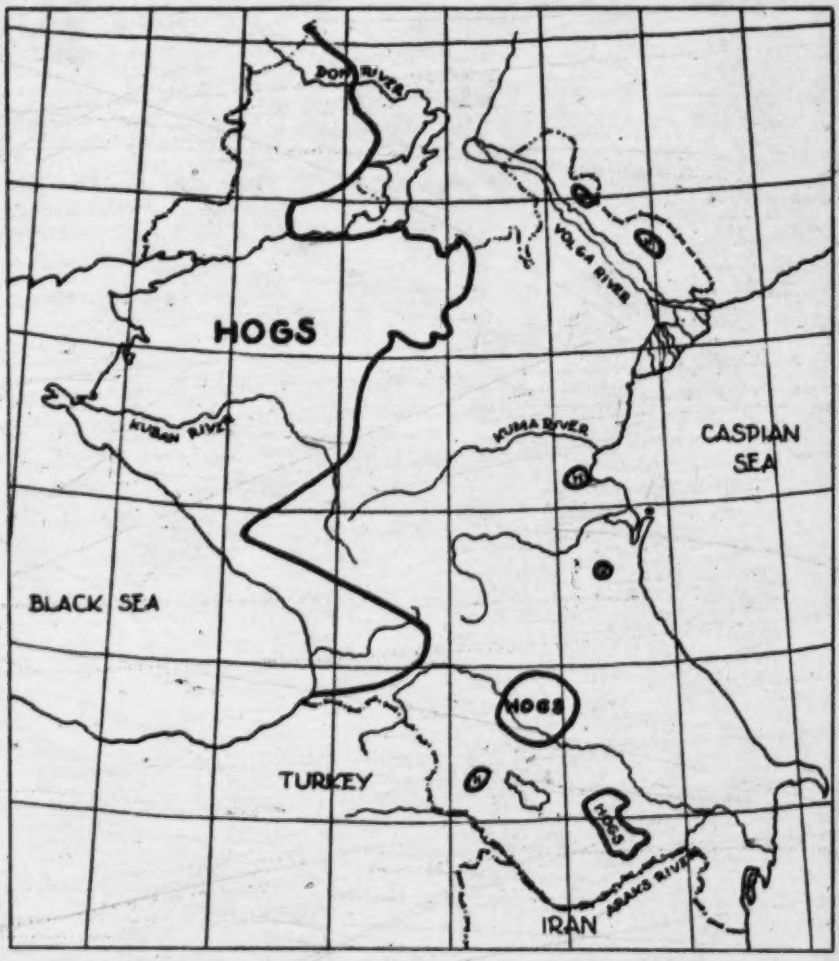

a[1].4 Silkworms

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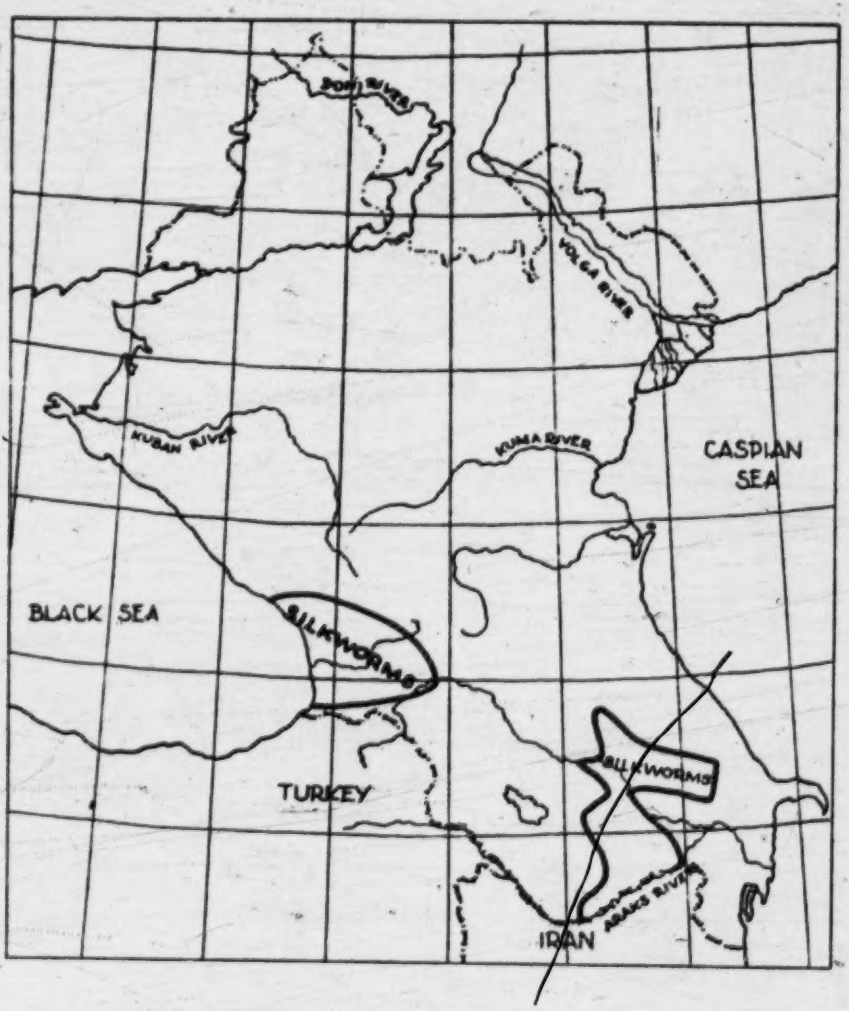

Forestry

311 137 38 The subtropical, deciduous (oak, beech, hornbeam) or coniferous (pine, juniper) forests constitute one of the many assets of the Caucasus. The Georgian Republic and the southern sections of the Krasnodar Kray are especially rich in forests. One finds many forests in North Armenia, in West Azerbaijan on the slopes of the Lesser Caucasus, and on the Lenkoran' Lowland, which last is famous for its subtropical forests. On the northern slopes of the Greater Caucasus, in the Stavropol' Kray, in the Groznyy Oblast, and in Dagestan the forests are less dense. Here the forest area is chiefly in the mountainous parts of the various administrative units like the North Ossetian ASSR, the Groznyy Oblast, and the Dagestan ASSR. The numerous lumbering, sawmilling, woodworking and furniture plants of this area indicate an extensive exploitation rather than great forest resources. Further to the north, north of the Kuban-Terek line, forests are virtually non-existent and the lumbering industry of Astrakhan', Rostov, etc. is based on imported timber floated or transported down the Volga and Don Rivers.

311 137 Area by area, the distribution of trees is as follows:

Azerbaijan SSR: Oak prevails in the sparse forests of the Lesser Caucasus and on the lower slopes of the Greater Caucasus,

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137 while oak forests cover the western parts of the Lenkoran' Lowland. Subtropical forests (with chestnut and oak trees together) grow in the vicinity of Lenkoran'. Beech is the typical tree of the higher slopes of the Greater Caucasus.

Armenian SSR: Oak is the predominant tree in the forests of northeastern Armenia. Elsewhere, the forests are almost non-existent.

Georgian SSR: The most heavily forested area in the Caucasus. The forests of Georgia proper offer a great variety of trees. The lower parts of the Rion River valley are covered by subtropical forests (with chestnut and oak trees together), whereas in the lower part of the Kura Valley oak is the typical tree. The higher slopes of these valleys are covered with beech, whereas pine is dominant around the head waters of the Ingur and Rion Rivers. Of the sub-units the Adzhar Republic has, according to the altitude, a subtropical, a beech, and a pine zone; the Abkhaz Republic has similar zones. The forests of the South Ossetian AO are homogeneous, with beech predominating.

Astrakhan' Oblast: Almost completely treeless.

Groznyy Oblast: On the southern slopes of the Sundzha Valley oak, and at higher altitudes beech is common. The rest of the oblast is treeless.

311
137 Dagestan ASSR: One finds forests only in the extreme western and eastern sections where the lower slopes are covered by oak, and the higher slopes by beech. The middle part (the valley of the Sulak River and its tributaries), and the northern sections are treeless.

Stavropol' Kray: This kray is almost treeless. Only in the southern part of the North Ossetian ASSR is there an oak zone, and at a higher altitude a beech zone.

Krasnodar Kray: The mountainous southern part and the Black Sea littoral are covered with huge forests which make the Krasnodar Kray the second most heavily forested area of the Caucasus. The northern section has oak, beech, and pine zones according to altitude. On the littoral, around Novorossiysk, oak and juniper, and around Sochi beech are predominant.

Rostov Oblast: Almost completely treeless.

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Caucasian forestry includes the following trees:

Subtropical trees: Chiefly in the Lenkoran' Lowland, on the Black Sea coast of Georgia, (from Sukhumi as far as Batumi) and around the Rion Valley.

Juniper: In the area around Novorossiysk, mostly together with oak.

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Chestnut: This tree is grown on a commercial scale in the subtropical forests of the South Caucasus. In addition to this, it is frequent in the oak forests of the Krasnodar Kray.

Oak: The oak is especially typical of the lower slopes of the Greater and Lesser Caucasus. It is the common tree of the eastern South Caucasus (Azerbaijan, Armenia). In the North Caucasus, except in the Kabardian ASSR, oak forests constitute a belt covering all the northernmost slopes of the Greater Caucasus.

Beech: This higher-altitude tree forms two belts of forests in the South Caucasus. One of them cuts through the whole South Caucasus and stretches from the Tuapse area as far as Kuba (in Azerbaijan). The other, in the Lesser Caucasus, covers the area between Batumi and Tbilisi. In the North Caucasus the beech also forms a forest belt (in three sections), which, however, is less impressive than the oak zone which it parallels.

Pine: This tree of the highest altitudes grows in the western parts of the Greater Caucasus and covers a crescent-shaped area. It occurs also at the highest points of the Adzhar Republic.

$a^2.2$ Tree Varieties

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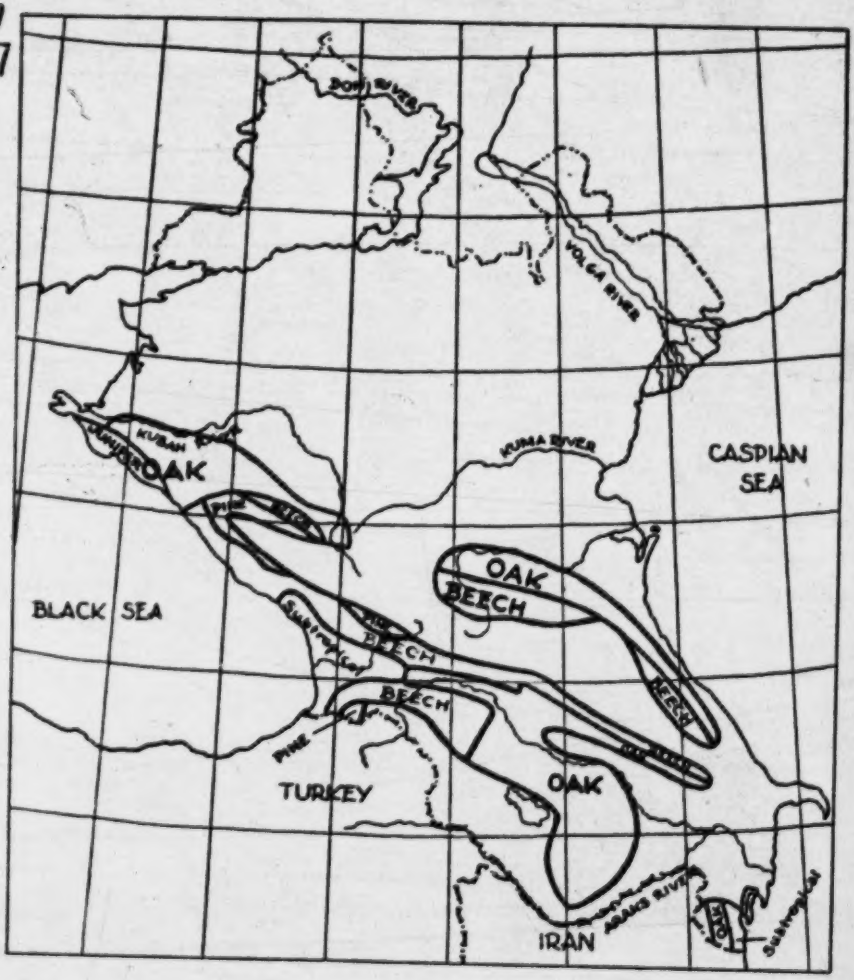

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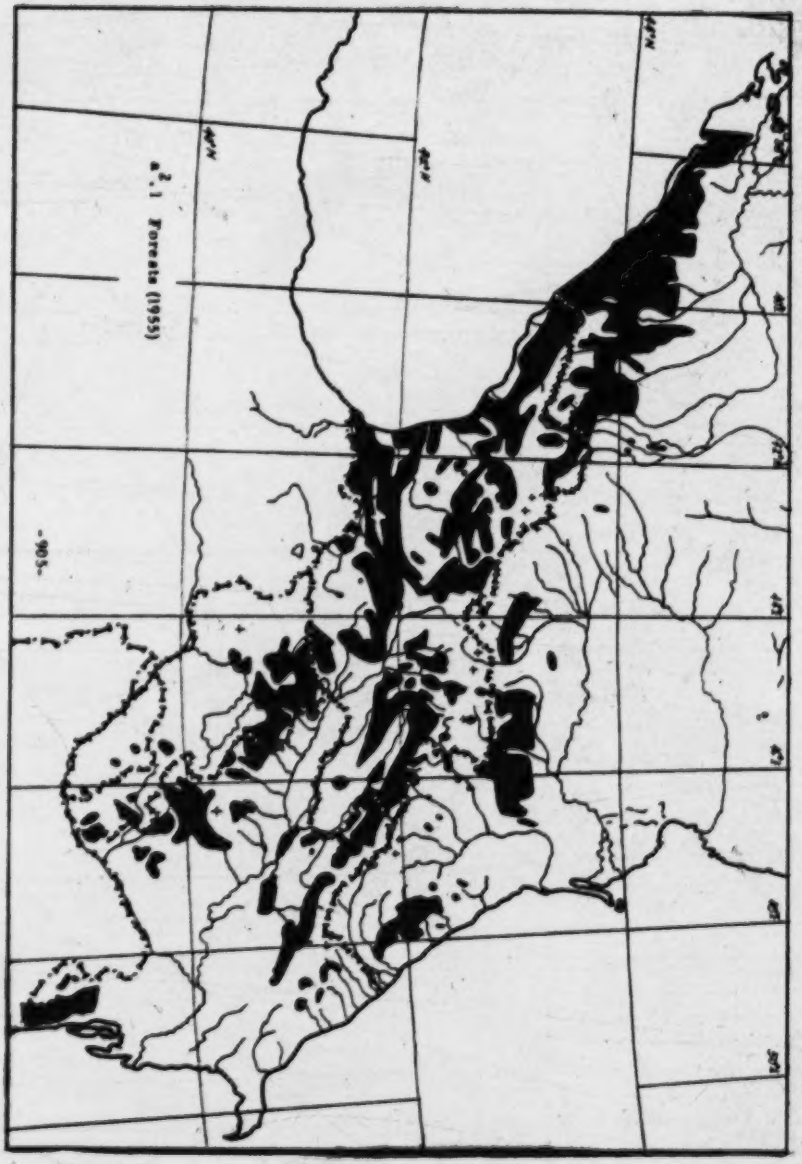

Industrial Potential

433 The industries of the Caucasus present a complicated and uneven pattern. This is due mostly to the distribution of natural resources, but partially also to historical factors. The area is rich in power resources concentrated mostly in the southern parts of the Caucasus; the oil resources and the oil industry are of unionwide significance. Of the mineral resources, manganese and copper are the great assets though the almost complete lack of iron ore (mined only at Dashkesan) constitutes a serious weakness. Also among the important assets are the various machinery plants, which occur almost everywhere, and the series of cement mills around Novorossiysk, the food industry of the North Caucasus, and finally the fishing and fish-canning industry along the coast of the Caspian Sea.

311 433 Taking the sub-areas of the Caucasus one by one, the distribution of the various industries is as follows:

Azerbaijan SSR: The Center of the Russian oil industry; in addition to this it has the only iron mine in the entire Caucasus. The textile industry is also well-developed. The industries in general are concentrated in the Baku and Kirovabad areas. The sub-units (Nakhichevan' ASSR, High-Karabakh AO) have no industries beyond processing agricultural goods.

Armenian SSR: An area rich in manpower, but poor in natural resources. Fuels are non-existent, hence the importance of the

311 433 recently-built hydro-electric plants. Of the industries, copper-mining and smelting, the aluminum industry, and the chemical industry (including the synthetic rubber industry) are important. Among the rural industries are the sugar industry, and the world-famous wine and cognac industry.

Georgian SSR: Rich in coal. The important coal mines of the Caucasus are all in Georgia. In addition to this, the area is very rich in hydro-electric resources. Of the mineral resources, manganese is the most important. Heavy metallurgy is represented by the ferro-manganese works of Zestafoni, and by Rustavi, the latter utilizing Georgian coal and Azeri iron. Kolkhida, the western part of the area, has only rural industry. Of the sub-units the Adzhar Republic is important for its oil-cracking plants (Batumi), and for its tobacco plants. In the Abkhaz Republic, coal-mining, lumbering, and tea-processing constitute the chief industrial activities. The industry of the South Assetian AO is based on a rural economy and on the forest resources of the area.

Astrakhan' Oblast: The fishing center of the USSR. In addition to this the area has very important salt deposits (Baskunchak) providing 1/4 of the Russian output. Sawmilling and wood-working, another important industrial activity of the area, is based on imported lumber.

Groznyy Oblast: The second largest oil-fields and oil industry of the USSR are in this area (centered around Groznyy). The capital of the Oblast is at the same time an important

311
433 center of chemical, lumber, and food industries.

Dagestan ASSR: Area rich in various kinds of industry. The Makhachkala oilfields and oil industry, though less rich than those around Baku or Groznyy, are still of unionwide significance. Among the other industries, the metal handicrafts, the glass industry (Dagestanskie Ogni) are noteworthy. Of the food industries, fishing and fish-canning are important (centered around Makhachkala, Lopatin). The area can at the same time be considered the chief fruit-canning center of the Caucasus.

Stavropol' Kray: The industries are based chiefly on a rural economy. Flour-milling, meat-packing, and wine-producing are the most important industrial activities. Of the sub-units, the Kabardian ASSR has also rural industries and some lumbering. The two other units, the Cherkess AO and the North Ossetian ASSR, offer a greater variety of industrial activities. The Cherkess AO has besides the rural industries a chemical, a textile, and a lumbering industry. The North Ossetian ASSR is rich in hydro-electric power, disposes of considerable oil resources, and is the center of Caucasian non-ferrous metallurgy. The North Ossetian area has a developed lumbering industry as well, and its Beslan kombinat is one of the strongholds of the Caucasian food industry.

Krasnodar Kray: The chief industries of the area are oil, cement, and wine. The oil industry is connected with the oilfields of the Taman'-Belaya River area, and with the oil-refineries at Tuapse. The cement mills are

311 433 located around Novorossiysk. The wine industry is also centered around Novorossiysk. The only sub-unit of the kray, the Adyge AO, is highly industrialized. The main industry is the oil industry. Of smaller importance are metallurgy and machinery, and the lumbering, food, and tobacco industries.

Rostov Oblast: Since the detachment from the oblast of the coal-mining areas, its industry consists mostly of various machinery plants concentrated at Rostov, Taganrog, and Novocherkassk.

The distribution of the various industries in the Caucasus is as follows:

315 382 Oilfields, centers of oil industry: The oilfields and the oil industry arising from them are the main assets of the Caucasian economy. Of the five oilfields, two are in the South, and three in the North Caucasus. The greatest is the Baku oilfield. The importance of this oilfield is however declining; its output, which constituted 83% of the Russian output in 1913, had fallen to 48 in 1950. Due to the 85 years of exploitation, the wells are very deep and mostly on the bottom of the Caspian Sea. The output is refined mostly in the cracking plants of Baku or sent through two pipelines to Batumi. The second important oilfield of the Caucasus is located around Groznyy. The product of this oilfield furnishes mostly high-octane aviation gasoline. The Groznyy product is either processed in the cracking plants of Groznyy and Malgobek, or piped to the cracking plants of Tuapse, or to Trudovaya in the Donets Basin. The Makhachkala products, however, are refined mostly in Makhachkala itself. The fourth center

Until 1936 Transcaucasia formed a single political unit: the Transcaucasian Soviet Federated Socialist Republic, then one of the union republics of the USSR. With the promulgation of the 1936 Constitution, this federated republic was split up into its primary components based on the three principal nationalities: Armenian, Azerbaijan, and Georgian SSR's. Minor nationalities, such as Abkhaz, Adzhars, and Ossetians, are organized into lesser autonomous units such as autonomous SSR's or autonomous oblasts.

Petroleum is the most important single asset of Transcaucasia. The Baku oil region of world-wide significance is the principal petroleum producer of the USSR, furnishing more than one half the total output. Pipe lines for crude oil, kerosene, and other petroleum products lead from Baku across the entire region to Batumi on the Black Sea, next to Baku, the principal oil port and refining center of Transcaucasia. Before the Second World War the petroleum industry accounted for two fifths of all factory workers, two thirds of the use of electric energy, more than one half the industrial production, and almost two thirds of the exports of Transcaucasia. Since then, however, the creation of new industries and the increase of electric power sources have reduced the relative importance of this branch of the economy. Among the other important power resources are the coal mines of Tkibuli and Tkvarcheli in Georgia, especially the reserves of hydroelectric power, which equal the reserves of the European part of the USSR. Among the most important metal deposits are the manganese mines of Chiatura (Georgia), the second largest in the world, copper in Armenia, and iron in Azerbaijan.

Manufacturing industries are mainly devoted to the processing of the local agricultural products: fruit canning, wine-making, distilling, and cotton ginning. Azerbaijan has a well-developed textile industry, and many of the precious woods are used in wood-working plants. Heavy metallurgy is represented by the steel mills of Rustavi (Georgia) and the ferro-manganese works of Zestafoni (Georgia), and there are machinery plants in many of the large cities. Chemicals and cement are also produced.

In connection with the varied natural conditions and under the influence of the vertical zoning in the mountains, all rural economy forms are represented—from orchard farming in the irrigated sections to nomadic livestock raising in the drier areas. The land is divided according to usability as follows: one fifth is arid, due to the presence of rocks, sands, or marshes; another fifth is forested; more than one third is

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pasture land, including the dry lowland steppe areas (used in the winter) and the mountain meadows (used in the summer). Only one fourth of the total area is under cultivation. The principal crops are garden fruits (apples, pears, apricots, peaches, plums, chestnuts, walnuts, and almonds) and subtropical products such as tea and citrus fruits along the Black Sea coast. Sericulture and viticulture are also important. Transcaucasia is the second most important cotton producer of the USSR; the principal cotton areas are in the dry, gray-soil lowlands of the Aras and the Kura, where the most extensive irrigation systems have been developed. In Abkhazia tobacco is grown, and the flooded lowlands of eastern and southern Transcaucasia are suitable for the cultivation of rice. Grains are subordinated in favor of the more specialized industrial and subtropical crops. Livestock is generally driven over great distances, from the winter pastures in the dry steppes to the mountains, where the Alpine meadows furnish excellent summer fodder. This nomadic type of livestock raising is gradually making way for more intensive, sedentary methods, since the dry steppes are gradually being irrigated, and large areas are coming under fodder crops. Sheep and cattle form the principal herds. Horses are few, and they are replaced partly by water buffaloes (for farm work) and partly by camels, mules, and donkeys (for transportation).

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The basic railroads are the Batumi-Baku line, with a large number of branches and spurs, including the coastal railways along the Black and the Caspian seas, and the southern branch, which links Tbilisi and Baku via Dzhul'fa and the Aras valley. The Transcaucasian railway system provides connections with the Turkish rail network at Leninakan, and from Dzhul'fa a line goes south to Tabriz (Iran), with an ultimate extension to Tehran. Most of the lines have been electrified or are in process of electrification. Transportation in the higher sections has to rely on highways, among which the Sukhumi, the Ossetian, and the Georgian military roads across the Greater Caucasus range are most noteworthy. Due to the mountainous character of the river courses, inland navigation is negligible.

Azerbaijan Soviet Socialist Republic

Capital, Baku; area, 33,100, population, 3,100,000

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The Azerbaijan (or Azerbaydzhan) SSR lies in the eastern section of Transcaucasia, on the Caspian Sea. It includes the southeastern spurs of the Greater Caucasus, which terminates in the Apsheron peninsula,